



The Macaque Report

Indonesia's Unprotected Primates



October 2022

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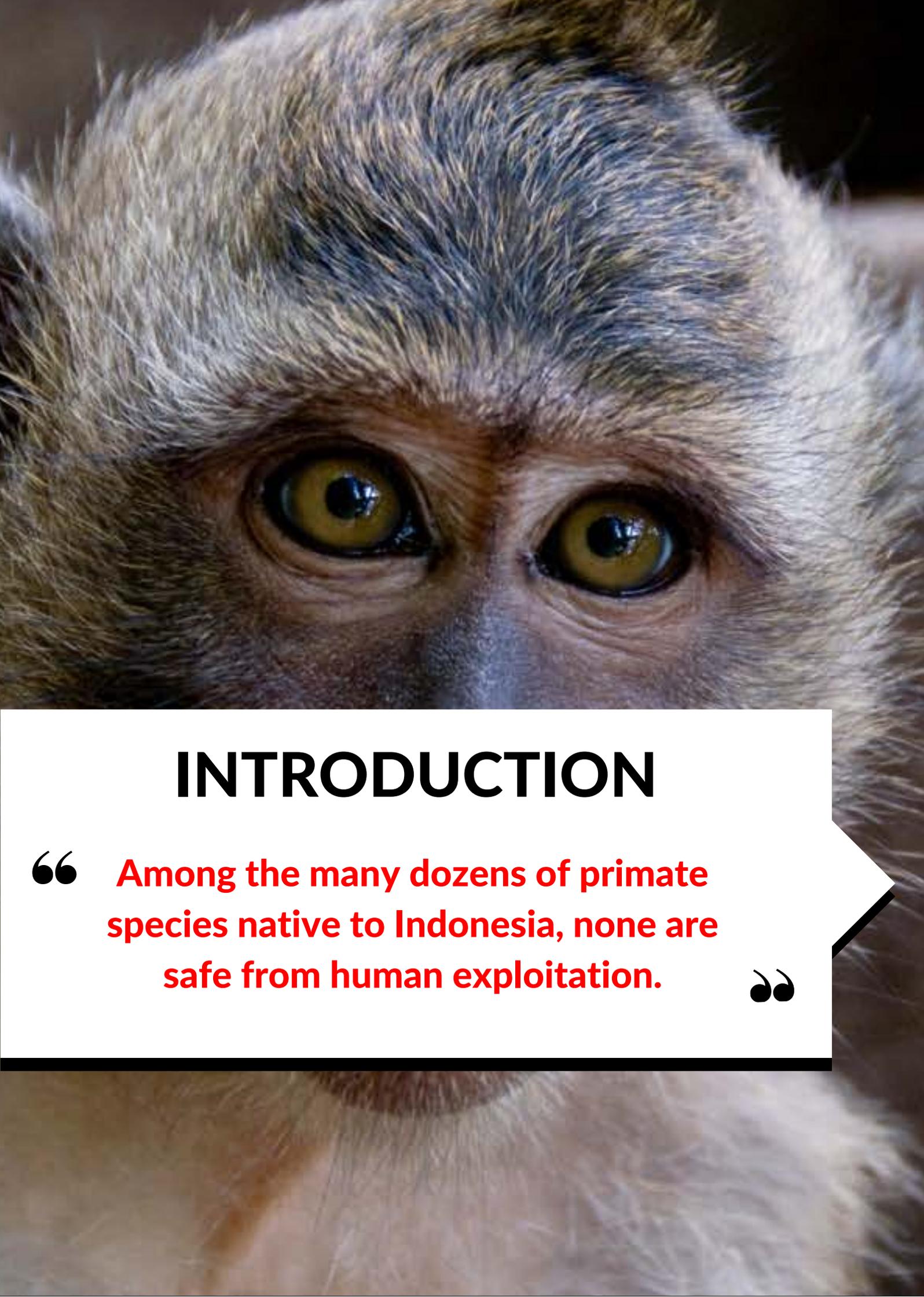
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some of the details in this report may be distressing





INTRODUCTION

“ Among the many dozens of primate species native to Indonesia, none are safe from human exploitation. ”

INTRODUCTION

1. SUMMARY

Among Indonesia's spectacular array of wildlife and its many primate species, two species of macaque are exploited with particular intensity, and neither are protected under the nation's wildlife protection legislation. Over the past several decades, both long-tailed macaques (*Macaca fascicularis*) and Southern pig-tailed macaques (*Macaca nemestrina*) have been repeatedly uplisted by the International Union for the Conservation of Nature, first to Vulnerable, and now both species are considered to be Endangered.

Because these charismatic macaques are skilled at making their living in environments dominated by humans, they can appear to be superabundant. News reports from across their range repeatedly refer to them as "gangs", "thieves", and "marauders." Indeed, when human food and crops are easy to access, these resourceful and clever monkeys take advantage of the situation. When they do so, negative interactions with people can occur.

In the face of this, it is no wonder that some people, organizations and authorities habitually regard them as "pests" or as plentiful resources. Once labeled as such, they are treated accordingly, and macaques are killed in great numbers, or trapped and sold into long and miserable lives as pets, performers or subjects of biomedical research. And since the beginning of the Covid pandemic, animal protection organizations and researchers have noticed an apparent uptick in the exploitation, with ever-more visible online cruelty content, more wild capture and an increase in export for biomedical purposes.

This report examines the different ways in which long-tailed and pig-tailed macaques are being harmed, both as individuals and as populations, in a country in which they also hold deep cultural and historical significance. It examines interconnections between issues, and importantly, offers suggestions for ways in which the situation for Indonesia's macaques can be improved.

2. WHO WE ARE

The Asia for Animals (AfA) Coalition comprises a core of 25 well-known and globally respected animal welfare organizations, supported by a network of hundreds of additional animal welfare, environmental and conservation organizations from around the world. All share a common goal: to improve the welfare of animals across Asia.



The AfA Macaque Coalition brings together animal advocates and primate specialists from diverse organizations and backgrounds. All advocate for the welfare of macaques worldwide. In this report, Macaque Coalition Member Organizations pool their vast expertise to examine the array of particularly intense exploitation to which Indonesia's macaques are relentlessly and cruelly subjected, and present strategies to mitigate the ecological and individual harm that results.

Action for Primates; Animal Concerns Research & Education Society; Animal Friends Jogja; Animal Protection Denmark; Animals Asia Foundation; Animals Don't Speak Human; Born Free Foundation; Federation of Indian Animal Protection Organisations; Four Paws International; Global Animal Welfare; International Primate Protection League; Jakarta Animal Aid Network; People for the Ethical Treatment of Animals; Society for the Prevention of Cruelty to Animals Hong Kong and Wild Welfare are all members of the Macaque Coalition and have contributed to or otherwise support this report.



3. INTRODUCTION

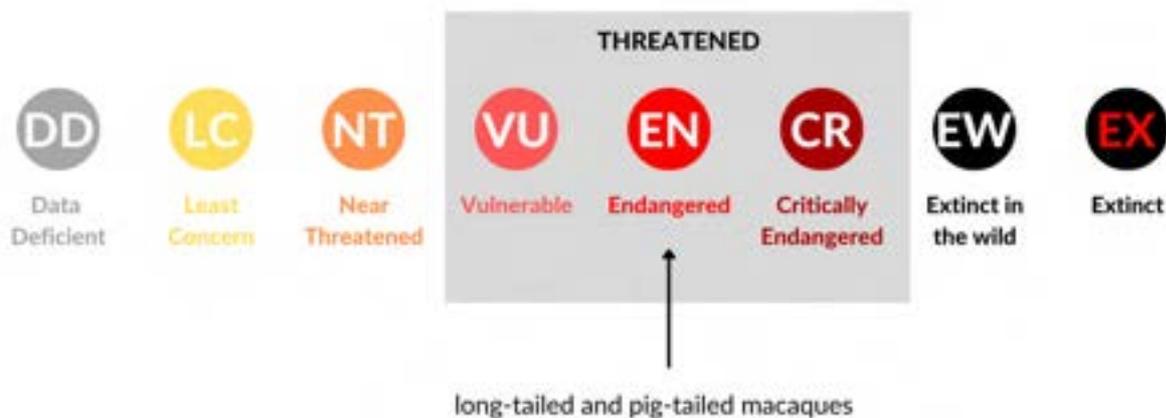
Among the many dozens of primate species native to Indonesia, none are safe from human exploitation. From the iconic orangutans of Sumatra and Borneo to the tiny Javan slow loris, many Indonesian primates are listed as Endangered or even Critically Endangered by the International Union for the Conservation of Nature (IUCN). The threats faced by these species are globally recognized, and many have been given legal protection both nationally and internationally. Unfortunately, two heavily exploited primate species are excluded from Indonesia's national conservation legislation: long-tailed macaques (*Macaca fascicularis*) and southern pig-tailed macaques (*Macaca nemestrina*) (hereafter referred to as pig-tailed macaques). The conservation status of both these species has very recently been raised from Vulnerable to Endangered (uplisted) by the IUCN via their Red List of Threatened Species.

Long-tailed and pig-tailed macaques are frequently captured and kept as pets, resulting in intense suffering. They are sold openly in markets, and are frequently abused for profit via social media platforms. Pig-tailed macaques continue to be hunted as food, and long-tailed macaques are one of the most widely used nonhuman primates by the research and testing industry worldwide. In all cases, individuals of these species are subjected to a disproportionate level of suffering, and it is becoming clear that entire populations have been nearly or entirely decimated for such purposes, across Indonesia and globally. These species' very survival is under intensifying threat.

Although their numbers are rapidly and dramatically declining, long-tailed macaques, sometimes known by other names like crab-eating macaques, kera, cynomolgus monkeys, or in Indonesia monyet ekor panjang, are naturally one of the most widely-distributed monkey species on earth. They are native to 13 Asian countries, including Indonesia, and introduced in several other regions like Mauritius and Papua New Guinea [1].

Introduced species are wild animals with the same needs and abilities, can carry the same diseases, and deserve the same consideration as their counterparts. Macaques' particular adaptability to human-altered environments means that they are also one of the most visible monkey species; they can be found in and around villages, temples and even busy city centers. This leads many people, including authorities, to conclude that they are overabundant, which enables their heavy exploitation at the local, national and international levels. Long-tailed macaques are listed on Appendix II of the Convention on International Trade in Endangered Species (CITES). Appendix II species are those for which trade "must be controlled in order to avoid utilization incompatible with their survival"[2]. In 2015, the species' global conservation status was reassessed for the IUCN Red List of Threatened Species, the world's most comprehensive inventory of the global conservation status of biological species.

IUCN Red List Categories



Their status was uplisted to Vulnerable with a decreasing population trend and a lack of population data for the species, reflecting increasing concerns about long-tailed macaques' conservation status. In mid-2022, long-tailed macaques were again uplisted, this time to Endangered, as a result of continued and increased pressure on wild populations [3]. This is particularly concerning in light of increasing demand for long-tailed macaques as subjects for use in toxicity testing and biomedical research. Demand has skyrocketed alongside the Covid pandemic despite the fact that long-tailed macaques were not directly enlisted in the development of the Pfizer, Moderna, J&J or AstraZeneca vaccine development. Nowhere is this demand felt more keenly than in Indonesia, where neither they nor pig-tailed macaques are legally protected by the nation's Conservation Act (Appendix I).

Southern pig-tailed macaques, named beruk in Indonesia, were also uplisted by the IUCN in 2022, from Vulnerable and decreasing to Endangered and decreasing, and are also listed on CITES Appendix II.3. According to the IUCN, they are primarily exploited as food; but they are also exported for research and kept as pets, and can easily be found for sale in Indonesian markets [4]. Infant pig-tailed macaques often feature in monkey hatred social media content [5]. They are often regarded as "pests" on the 16.4 million hectares of oil palm plantations that have encroached on a large proportion of their natural territory in Indonesia [6,7].

Under certain circumstances, free-living Indonesian macaques are valued by people, and are deeply culturally significant [8]. Unfortunately, this significance at times involves practices, like feeding, which can directly lead to negative interactions. Macaques are usually blamed, and as a result, killed or captured in large numbers to then be used for a variety of purposes, such as breeding or medical research.



4. OVERVIEW

“ **What could biomedical research and toxicity testing possibly have to do with negative interactions between rural Indonesian people and wild macaques?** ”

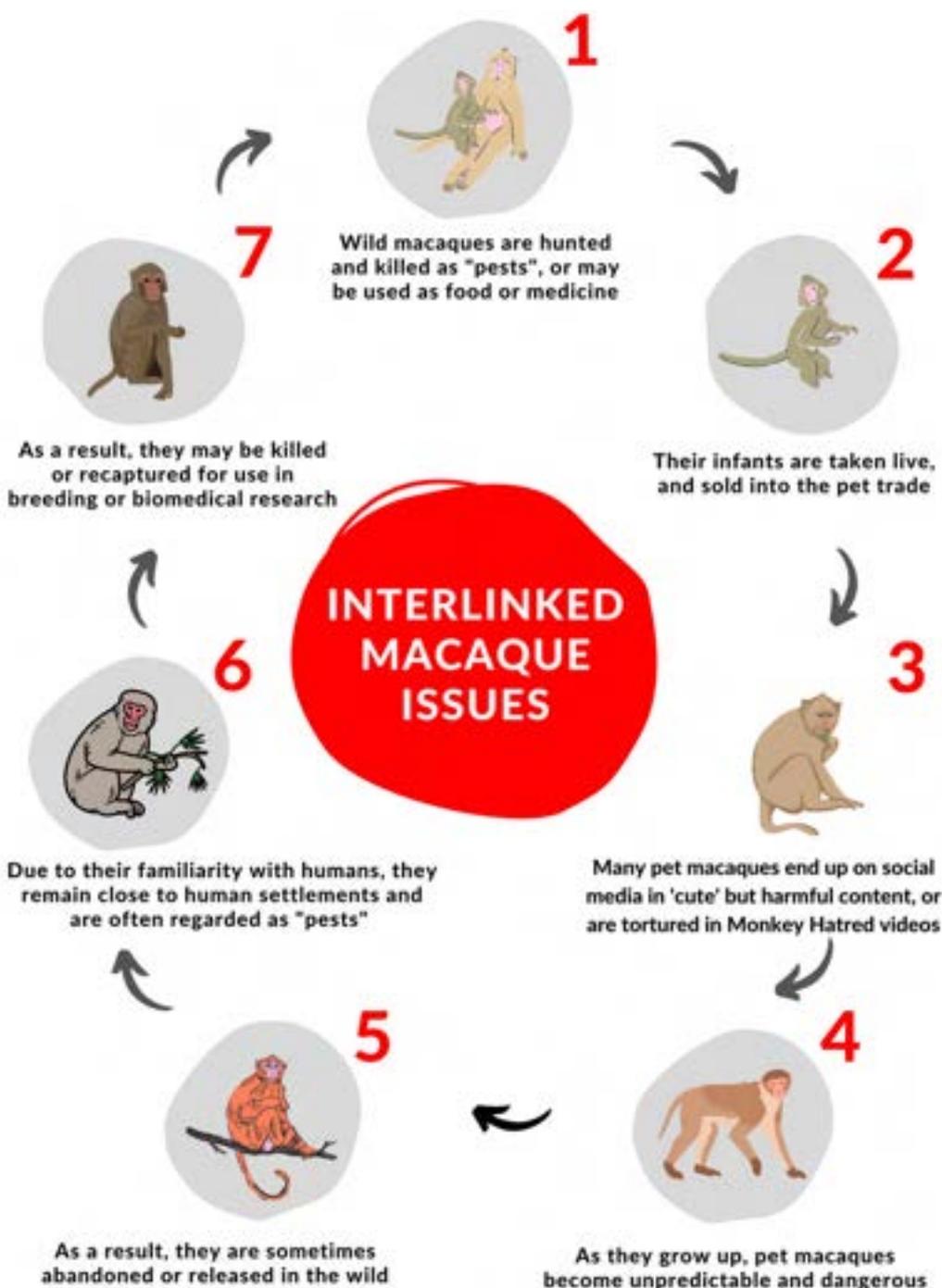


OVERVIEW

4.1 INTERLINKED ISSUES

At a glance, it would be easy to assume that the different forms of exploitation faced by Indonesia's macaques are separate issues. What could biomedical research and toxicity testing possibly have to do with negative interactions between rural Indonesian people and wild macaques? How could either of these issues be related to the pet trade or the international phenomenon of online animal cruelty content?

In fact, the different ways that people exploit macaques are often heavily intertwined, in Indonesia and across the world. For example, when macaques are hunted and used as food or medicine, their infants are often retained and kept or sold as pets (section 7.5).



These individuals suffer not only the extreme trauma of capture and of separation from their families, but then endure years of being kept in wholly inadequate conditions.

These monkeys may then be used to create online cruelty content or monkey hatred content - often for profit (section 7.6). If pet monkeys survive until they approach adulthood, they become unmanageable and dangerous, and are sometimes abandoned or released back into the wild - but having spent their formative years around humans, they lack the essential skills needed to survive in the wild, like foraging and navigating complex social hierarchies.

These individuals are often released with collars still attached, which tighten as they grow, causing pain and strangulation. They may remain close to developed areas, unafraid to approach people or enter unsecured houses in search of food. Soon enough, they are locally regarded as pests. At this point, they, along with other macaques in the region, may be injured or killed by people who see them as a threat (section 7.1); they may be captured and sent to laboratories or facilities that breed macaques for export (section 7.5); or they may themselves - or their body parts - be used or exported for the global research and testing industry (section 7.4).

The above example is just one of the ways that these issues can interlink. Similarly, the use of macaques as performers, as photo props for selfies, or in roadside zoos can interact in different ways with their abuse as pets or with societal attitudes, perceptions and behavior towards macaques. And the effects are global: it is well-established that exposure to images of primates in inappropriate proximity to humans increases desire to keep pet primates and decreases accurate conservation understanding [9-11].



By bringing together experts and advocates to discuss these separate issues, it has become clear that they are deeply interlinked and that each must be addressed in the context of the others.

4.2 MORE EXPLOITATION, FEWER MONKEYS

Over the course of the COVID-19 pandemic, animal welfare and primate professionals working in Indonesia have noticed a steep increase in the exploitation of long-tailed and pig-tailed macaques. This is partially explained by the increased demand for long-tailed macaques in research and testing. Indeed, wild-caught monkeys have been exported and used domestically for such purposes, despite the fact that their use violates the standard research practice for vaccine efficacy trials (which is to use purpose-bred, specific pathogen-free (SPF) animals). The export of supposed Specific Pathogen Free (SPF) animals has also increased, although as will be discussed below, the numbers do not add up. However they are sourced, monkeys used for such purposes suffer enormously.



With one Indonesian official recently publicly declaring that macaques “may be safer and more prosperous being kept by humans than being deprived of food and being killed by fellow apes in the wild” [12], it is no surprise that many people do not understand the serious harm caused to macaques and their populations by the pet trade and that rescue organizations are seeing a dramatic rise in the number of young monkeys needing help.

The last assessment of the global long-tailed macaque population was carried out in 1995, but recent work strongly suggests that populations have dramatically declined since that time [13]. In Lao PDR, the population has declined greatly and in Bangladesh, it has disappeared entirely [3].



5. TERMS AND DEFINITIONS

“ **The words we choose to use matter..** ”



TERMS AND DEFINITIONS

The words we choose to use matter [14,15]. When, for example, macaques are regularly described in popular media as “raiding” or “marauding”, the public is primed to regard their behavior as such. When they are discussed as sentient individuals who matter and are trying to survive, they are perceived in a more favorable light. Throughout this report, certain terms are used repeatedly. Here we define some of these terms, and explain why we choose to use them.



- **Crop foraging:** An alternative, neutral term for “crop raiding”, describing the utilization by wildlife of crops planted by humans. Primatologists have found that the use of the term “crop raiding” frames the issue incorrectly and misleadingly, which in turn can affect the way people regard wildlife [16].
- **Introduced species:** an alternative, neutral term for “invasive species”.
- **Killing, wild capture:** The mass killing and capture of wildlife in response to negative interactions are commonly referred to as “culling” or “harvesting”. These are euphemisms that serve to legitimize practices that cause harm and de-emphasize their reality. In order to avoid this and to report accurately, we choose to refer to the practice in realistic terms.
- **Negative human-macaque interactions:** An alternative, neutral term for “human-macaque conflict”. Macaque advocates have found that communities are more likely to regard the mere presence of macaques negatively when negative interactions are described as “conflict” [17].

- **Cruelty content (or online/animal cruelty content):** Cruelty content is anything that has been posted on a social media platform by an individual, organization, or business, that depicts animal cruelty or suffering for any reason. Valid welfare campaigning, journalistic or educational purposes should not be considered as cruelty content. Cruelty content has no discernible meaningful purpose [5].
- **Monkey Hatred content:** A recurring cruelty content theme. Monkey Hatred content usually focuses on captive young macaques, often kept in pet-like conditions. The cruelty in such videos ranges from the ambiguous and intentional (e.g. teasing a caged monkey) to the obvious and intentional (e.g. grievous physical harm or protracted death).
- **Provisioning:** the practice of feeding wildlife, whether intentionally (for example, at tourist sites or temples) or unintentionally (unsecured rubbish bins and other food sources).
- **Pest:** A term that is often used to describe animals that people may perceive as overabundant, harmful or annoying. Knowing that framing matters, we avoid such use. The AfA Social Media Animal Cruelty Coalition (SMACC) has identified a variety of terms, like “tree rat,” which are used derogatorily to describe macaques in online cruelty content.
- **Synanthropic:** Synanthropic species or synanthropes are undomesticated species that live and thrive closely alongside human beings. Synanthropic primates include a number of macaque species - for example, rhesus, long-tailed and bonnet macaques. Other synanthropic animals are pigeons, rats, sparrows, and coyotes.





6. BACKGROUND

“ **Welfare and conservation issues have intensified with the synergistic effects of deforestation, expanding human populations, and increase in demand...** ”

BACKGROUND

6.1 MACAQUES IN INDONESIAN CULTURE

Monkeys have a deep cultural significance in Indonesia; for example the island of Bali is thought to have been named after “a powerful and evil monkey king” from the Javanese epic Ramayana Kakawin [8]. Monkeys appear frequently in Indonesia’s mythology, art and theater. In the Hindu religion, they are worshiped through their linkage to the god Hanuman, and in the animistic culture that still prevails in many Indonesian societies, they are respected and understood as an important part of life.

Macaques and humans have coexisted in the Indonesian archipelago for thousands of years. Indeed, some of the ways that they are exploited today are also old practices - for example, their use as food or the keeping of young monkeys as pets. The welfare and conservation issues associated with these practices have intensified with the synergistic effects of deforestation, expanding human populations, and increase in demand.



6.2 MACAQUE POPULATIONS AND ECOSYSTEM IMPORTANCE

Both long-tailed and pig-tailed macaques play important roles in the ecosystems that they naturally inhabit. As key seed-dispersers, their presence helps keep forests healthy, and they help maintain the balance between predators and prey [18]. Their removal would both signify and exacerbate an unhealthy environment (section 9). They are regarded by many communities and officials to be overabundant, but nothing could be further from the truth. In fact, they are disappearing fast throughout their range. Over a decade ago, long-tailed macaques were referred to by one eminent primatologist as “widespread and rapidly declining” [1].



6.3 SENTIENCE, SOCIALITY, AND COGNITION

Macaques live in large groups with intricate social structures and hierarchies. Group life centers around dominant matriarchs. Family ties are strong, particularly among females, who usually remain in the group of their birth for life and across generations. Unrelated individuals can also form enduring friendships that last for years [19]. Such bonds help individuals understand when their fellow macaques are happy, sad, or angry [20]. Group living and strong social ties are essential to the welfare and survival of individual macaques [21].

Macaques are emotional animals who are aware of themselves and of those around them. They can plan, monitor, evaluate situations, and can experience a range of emotions [22,23]. They experience positive emotions when playing or foraging, or when they are in close social contact with their families and friends. They also experience negative emotions, like fear or frustration, and appear to grieve following the death or loss of a family member [24-26].



Infant macaques are intensely dependent on their mothers for an extended period of time. Like human mothers, mother macaques actively search for their infant's gaze, lowering their faces towards those of their babies and gently bouncing them [27]. Mutual gaze, imitation of facial expressions and gestures, and exaggerated facial gesturing towards infants are distinctive signs of interpersonal communication and suggest a mutual appreciation of others' intentions and emotions.

Playful, curious and energetic, young macaques enjoy chasing, wrestling and goofing around with their peers. Such play not only keeps them physically fit, but teaches them important skills that they will need in the future [28]. Adults will also sometimes play with youngsters or even with one another, but they often prefer to sit quietly grooming one another, removing debris and parasites from each other's bodies.

Grooming is a major communication tool and an important social activity. It serves to build, maintain and strengthen alliances, and reduces tension and stress. Macaques may groom one another in order to resolve or reconcile following a conflict. They're innovative, too: long-tailed macaques develop and use tools, and, like other macaque species, pass such cultural traditions on to others in their groups [29,30].



6.4 MACAQUE WELFARE

The separation of infant macaques from their mothers and social groups has devastating effects on their development, and on their physical and psychological health [31,32]. Similarly, the health, welfare and early experiences of infant macaques' parents has profound effects on the babies' development, behavior and welfare [33]. When they are denied opportunities to perform the behaviors that come so naturally to them - climbing, traveling, foraging, and all of the complex social behaviors so important to group living - macaques are likely to show signs of depression which are similar to those identified in depressed humans [34]. These can include behaviors like lethargy, repetitive movements or self-harm, or psychological and physiological issues like high reactivity and repressed immunological function [32].

Captivity, whatever its purpose, restricts an animal's ability to forage, climb, and travel, and to socialize and pair as they would choose. In order to meet the complex behavioral, psychological, and physiological needs of captive macaques, sufficient resources and expertise and carefully constructed management plans are required. In the absence of these, captive macaques are likely to suffer intensely.



Common captivity-related welfare compromises include: social isolation; caged in incompatible pairs or social groups; small cages; barren cages; overcrowded cages; movement extremely limited by chains or ropes; little or no access to water, shade, shelter; lack of veterinary care; improper diet. These compromises represent deficiencies in all of the five domains of animal welfare: nutrition; physical environment; health; behavioral interactions; and mental state [35].

Interactions between free-living macaques and humans can be positive or neutral, but also have the capacity to be negative for both humans and macaques. The mass killing of populations that are considered to be problematic or overabundant involves the brutal and indiscriminate killing of multiple individuals. Live capture of free-living macaques is physically and psychologically traumatic. Feeding or handling by members of the public increases risks to both monkeys and humans of pathogen disease transfer and can be frightening and stressful for the macaques involved [36].



See the relevant sections for specific details about the welfare compromises involved in different forms of exploitation.



7. EXPLOITATION

“ Macaques are not only exported for biomedical purposes but are also used for biomedical purposes in large numbers within Indonesia... ”

EXPLOITATION

7.1 NEGATIVE HUMAN-MACAQUE INTERACTIONS

Whether people intentionally feed monkeys (for example as tourists or at temples) or do so unintentionally (through easy access to rubbish or crops and destruction of natural habitats), access to food is inevitably at the heart of most negative interactions between humans and macaques [37]. These negative interactions are often used to justify their killing or capture (see section 7.1).

Some macaque species thrive on the edges of human habitation, and have long histories of crop foraging and negative interactions with people in Indonesia [38,39]. They can be incredibly adaptable and they are clever. If food is more easily available to them in the form of handouts, refuse or crops, they will take advantage of this. When they grow too comfortable around people or see them as an easy source of food, or when their foraging causes real or perceived damage to crops and property, troubles arise.

7.1.1 CROP FORAGING



In Indonesia, macaques are known to forage on cacao, cassava, banana, coconut and other crops. This can have serious negative consequences for the farmers whose crops are affected. At the same time, studies have shown that in some cases, macaques have taken the primary blame for damage inflicted by other wildlife [39].



In 2017, soldiers, police and members of hunting clubs were invited to Java's Boyolali district to "battle" bands of "invading" long-tailed macaques following reports of bites and crop foraging [40]. The monkeys' behavior was blamed by officials on the dry season. Local people acknowledged that much of the monkeys' natural habitat had been destroyed, contributing to negative interactions [41]. The situation resulted in many monkeys being killed, though it is unknown exactly how many.

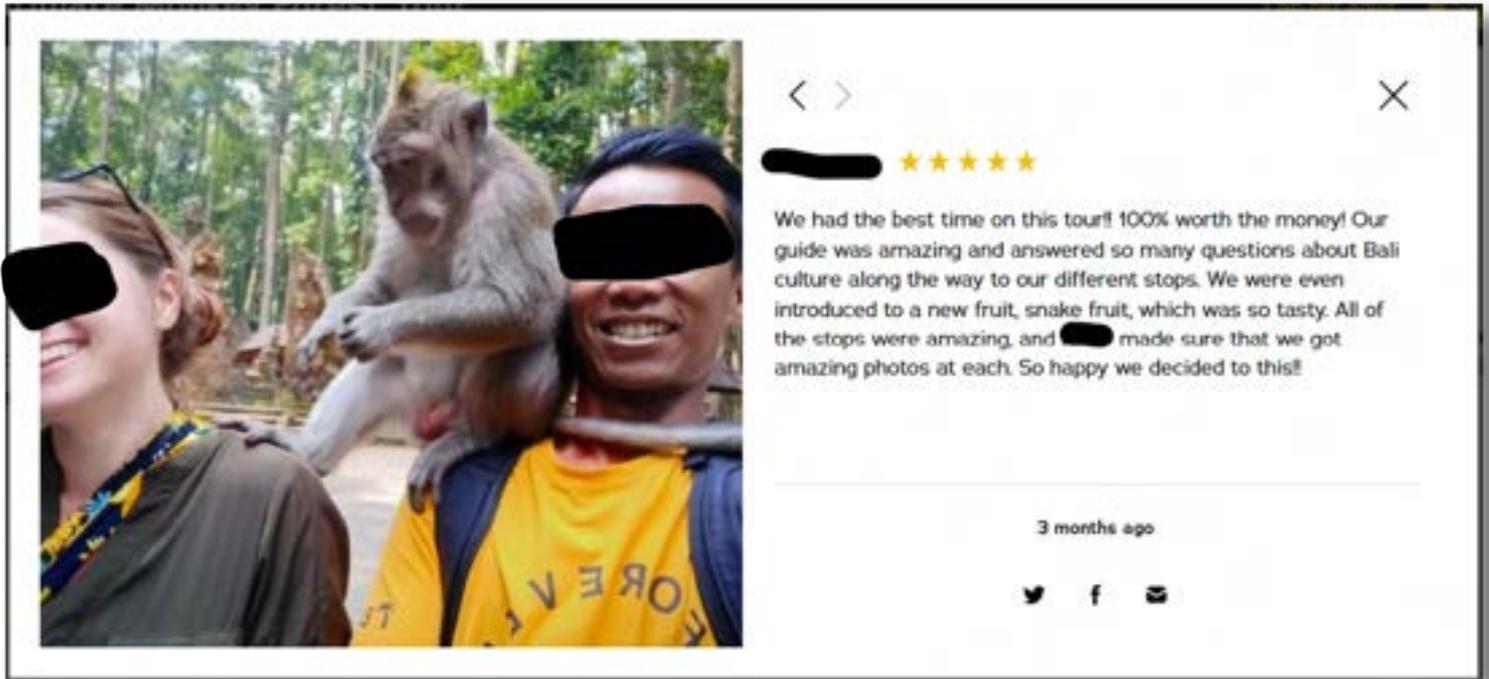
In 2020, macaques were killed in West Bandung using rat poison. A local leader reprimanded the individual responsible for his actions, but explained that although residents were being disturbed by the monkeys, they also felt badly that the monkeys' habitat had been destroyed and that they were hungry [42].

These situations are far from unique. Negative interactions between farmers and macaques are extremely common and difficult to solve in the face of macaque habitat reduction and degradation.



7.1.2 INTERACTIONS WITH TOURISTS AND AT TEMPLES

The prospect of interacting with wildlife can be particularly attractive to tourists, and macaques attract tourists in many Indonesian locations. Such “monkey forests” can provide real economic benefits for local people, but they also cause problems between people and monkeys. As macaques become more comfortable with people and begin to see them as sources of food, they become emboldened, and increasingly likely to snatch food. They may also learn that if they snatch people’s possessions, they will be “rewarded” with food for surrendering these items. Tourists rarely understand that their own behavior can appear threatening or aggressive to the monkeys. They may approach too closely, or stare in a way that many primates find threatening, or they may try to touch or hold the monkeys. Dangerous interactions and bites can and often do result [38].



- <https://www.tripadvisor.co.uk> > ... > Ubud Travel Forum > **monkey bite in monkey forest ubud - Bali - TripAdvisor**
Answer 21 of 75: Hi, i recently went to bali and visited monkey forest in ubud. When i was there, a monkey bit me on my foot. It started when one of the ...
- <https://www.aljazeera.com> > news > is-it-time-to-rethink... > **Is it time to rethink Bali's monkey forests? - Al Jazeera**
22 Sept 2021 — Constructed in the 14th century, the Ubud Monkey Forest in Bali is older than Indonesia. The original mission of the 10-hectare (25-acre) ...
- <https://theworldtravelguy.com> > sacred-monkey-forest-... > **Playing With Bali Monkeys At The Ubud Monkey Forest ...**
11 Jul 2022 — The Ubud Monkey Forest Sanctuary is lots of fun! This is a sacred jungle in Ubud where 600 wild Bali monkeys live. Here's a travel guide!
2) What To Expect – Ubud... 9) How To Get To Monkey... 10) Best Time To Visit
- <https://nerdnomads.com> > monkey-forest-ubud-bali > **Getting Attacked By Monkeys In Monkey Forest Ubud, Bali**
Balis biggest tourist attraction is not always peaceful and friendly. We had a scary and dramatic visit to the Monkey Forest Ubud. Here is what happened....

The same considerations apply at some religious sites, but are exacerbated by the fact that feeding bans cannot be put into place in such contexts because food offerings are a fundamental part of the tradition. When macaques are fed either by tourists or via offerings in urban areas, troop sizes quickly increase beyond the area’s carrying capacity and then negative interactions increase not only between people and monkeys, but between the macaques themselves. Additionally, when feeding primarily on human offerings, macaques are at increased risk of certain diet-related health problems like obesity, malnutrition, diabetes, or dental disease [43].

Macaques in such areas can become dependent on human handouts, and their local populations may grow beyond what the region can naturally sustain. The Covid pandemic illustrated this perfectly; their primary source of food disappeared as tourism was halted, and across their range, including in Indonesia, macaque troops experienced extreme disruption. For example, in Bali's Sangeh Monkey Forest, the monkeys began entering a nearby village, sparking fears of conflict among residents [44].

7.1.3 PERCEPTION

Whether or not interactions between humans and macaques actually cause damage or present danger, reactions to the presence of macaques are often determined by the way they are perceived by both local communities and, importantly, decision-making authorities. If a problem is perceived, then various forms of harm or exploitation are often resorted to in an attempt to address it.

The way macaques are portrayed in mass media and in everyday discourse matters. Such portrayals play a large part in shaping public perceptions of and attitudes towards macaques. Many studies have demonstrated that when depicted as entertainers or pets, the behavior, needs and conservation status of primates tend to be misunderstood [10,45-47]. Similarly, when regularly depicted as annoying or dangerous, as "menaces", or as overabundant, macaques are more often persecuted, captured, killed or otherwise exploited [14,48].



THE Sun < | MONEY | HEALTH | DEAR DEIDRE | TECH | TRAVEL | MOTORS



News > World News

GIBBON NO QUARTER Indonesia deploys **SOLDIERS** to protect people from marauding monkeys after a spate of vicious attacks saw locals savaged

A young child and several elderly people are among 11 people recently set upon by long-tailed macaques on the island of Java

Levels of tolerance for macaques can vary between cultural groups, even those living in the same region. In Sulawesi, for example, some groups are willing to accept that crop losses are an inevitable result of coexistence with moor macaques (*Macaca maura*). Other groups in the same region are reportedly far less tolerant, although macaques rarely forage in their rice fields [37].

7.2 MASS KILLING

When negative interactions persist in a given area, the authorities and others often resort to killing macaques as a way to control or reduce such interactions. In 2018, the Central Java Natural Resources Conservation Agency (BKSDA) stated that residents were free to shoot macaques if they felt that the monkeys were “enemies or pests”, pointing out that under Government Regulation 8 (2015), they are not categorized as protected animals [49]. Throughout Indonesia, once labeled by local authorities, under no specific criteria, as “conflict animals”, macaque populations may legally be killed or captured in whatever manner the authorities choose to approve, including killing and capture for breeding to supply the laboratory research industry (see sections 7.4 and 7.5). The Ministry of Agriculture Extension and Development Agency for Agricultural Human Resource’s website provides “pest control” advice about crop-foraging macaques, which includes the use of air rifles and poison [50].

Across Indonesia, members of PERBAKIN (the National Shooting Association) are often called upon to carry out such killing. Alternatively, the army, the police or community members armed with air rifles or poison do the job. Such actions may be carried out at the behest of the authorities, or they may be undertaken by members of the public without official direction. This contradicts national legislation that prohibits the use of air rifles to hunt wildlife and limits their use to specific areas. National Regulation of the Chief of Police Number 8 (2012) Article 4 states that people holding firearms for sport purposes are prohibited from using or firing firearms outside of practice, competition, and designated hunting areas. In a 2018 letter issued by PERBAKIN, addressed to its management in every province throughout Indonesia, they stated that members and affiliated rifle clubs must understand that under the regulation, air rifles cannot be used to shoot animals, but that air rifles may only be used for target shooting and competition [51].



Photo: muzina_shanghai. Licensed under CC BY-NC-ND 2.0

There are no centrally-kept records, and few locally-kept records available for estimating the number of macaques killed each year as a result of negative interactions, real or perceived, between people and macaques. Local and international news outlets report on such killing sporadically (see Appendix II), but not comprehensively. But given the sporadic media reports on the issue and the many known instances that are not reported it is likely that thousands are killed annually in Indonesia.

Perspectives differ on whether “culling” can ever be carried out humanely [52]. Those who assert that it is possible often focus on techniques that kill as efficiently and “cleanly” as possible, and on specific impacts that the action has on targeted individuals (e.g. the amount of time individuals take to die) [53,54]. There is no evidence that techniques to minimize suffering have been considered in any macaque-killing program. Whether shot or poisoned, targeted individuals are likely to experience drawn out, painful and frightening deaths. Those who escape with their lives may sustain painful, debilitating injuries. Those not targeted must watch their friends and family die, and are left with fractured, disrupted social groups and all of the long-term disruption that entails. While we could find no research specifically on the social disruption to macaque societies caused by culling or other removal, there is plenty of evidence from other socially complex mammals that such effects are distinctly negative and long-lasting, and may even exacerbate negative human-wildlife interactions [55–57].

7.3 HUNTING AND CAPTURE

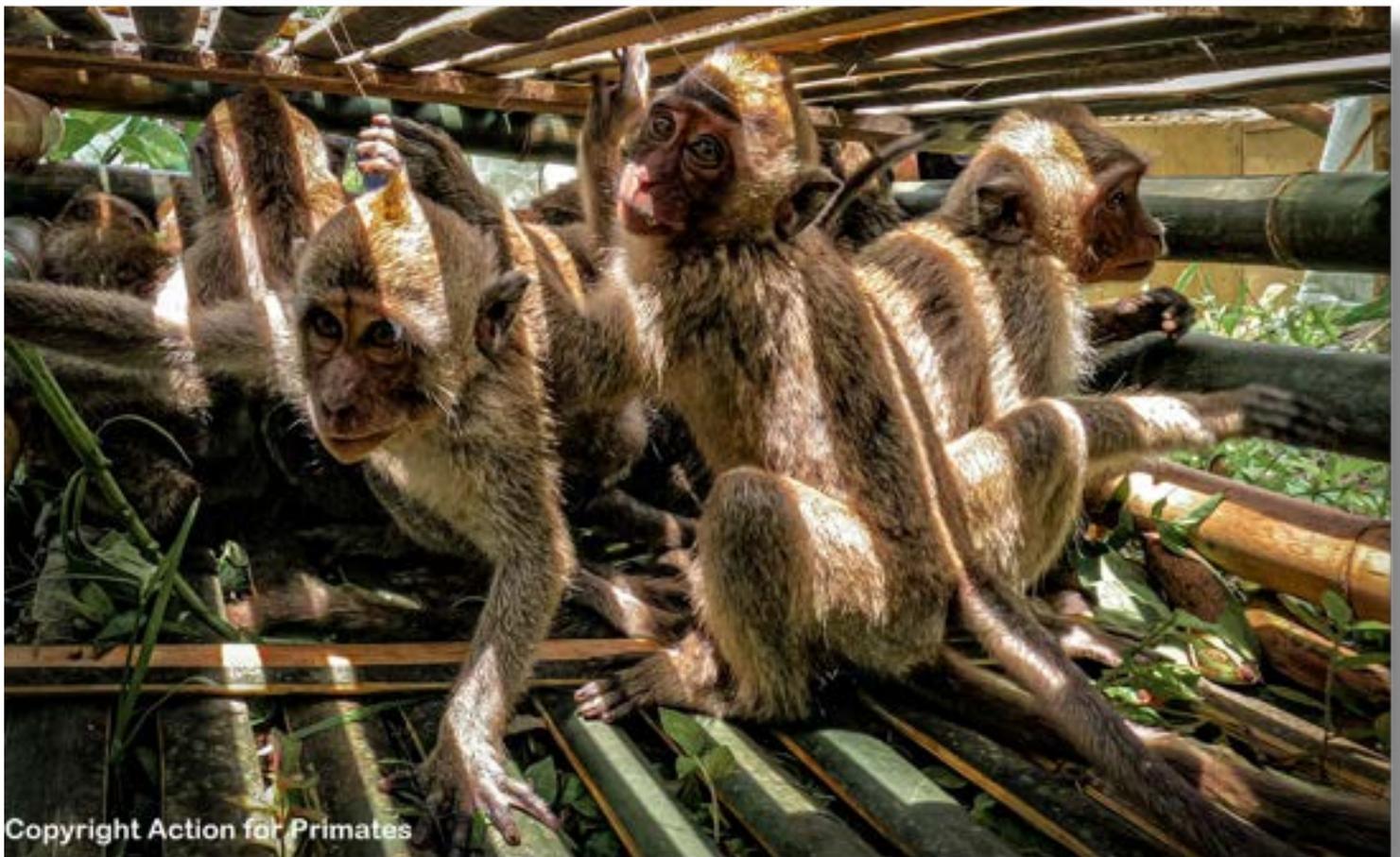
Long-tailed and pig-tailed macaques are hunted and captured using various methods, depending on intended use.



Baby macaques are targeted for the pet trade. Mothers and other group members are killed by local hunters using rifles in order to obtain the babies. The dead adults may be left behind, or may be sold or used as food. Macaques for the pet trade are most often captured in Sumatra but are also captured in other areas [58,59]. Baby macaques are commonly smuggled via public transport, sealed inside plastic fruit crates or cardboard boxes [60].

When companies that breed and export macaques for research or testing require more animals, they usually employ tribal people to chase and net the monkeys [61-63]. Large nets are used to encircle an area, foliage is cut down and the monkeys are trapped within. Monkeys may be pinned to the ground by the trappers' feet. The trappers then remove them one-by-one, either grabbing them by their necks or pulling the struggling animals out by their tails, which can cause spinal cord injuries. Their arms are pinned behind their backs in a manner that can lead to joint injury or dislocation. They are then either put singly into sacks (with the opening tied, so the monkeys are unable to move freely) or into wooden crates with others. Infants and mothers may be separated. 'Unwanted' alpha males may be killed using especially brutal methods, either beaten with a pole or having their throats cut. The individuals who survive are then sent to the breeding/export company's facilities (section 7.5).

The methods described above breach international welfare and transport recommendations and guidelines, and there are major health and welfare concerns regarding these practices [64-65].



7.4 INTERNATIONAL TRADE

For international trade involving wild macaques, CITES requires that its member countries provide non-detrimental findings (NDFs) demonstrating that their capture will not negatively impact wild populations [66]. This would normally involve population surveys. In Indonesia, population surveys are recommended before permits are granted for any large-scale capture of macaques. In these cases, regions where negative interactions between people and macaques have been reported to BKSDA (Balai Konservasi Sumber Daya Alam - Indonesia's nature conservation agency) are usually targeted and so macaques are more likely to be locally regarded as "pests" [67].

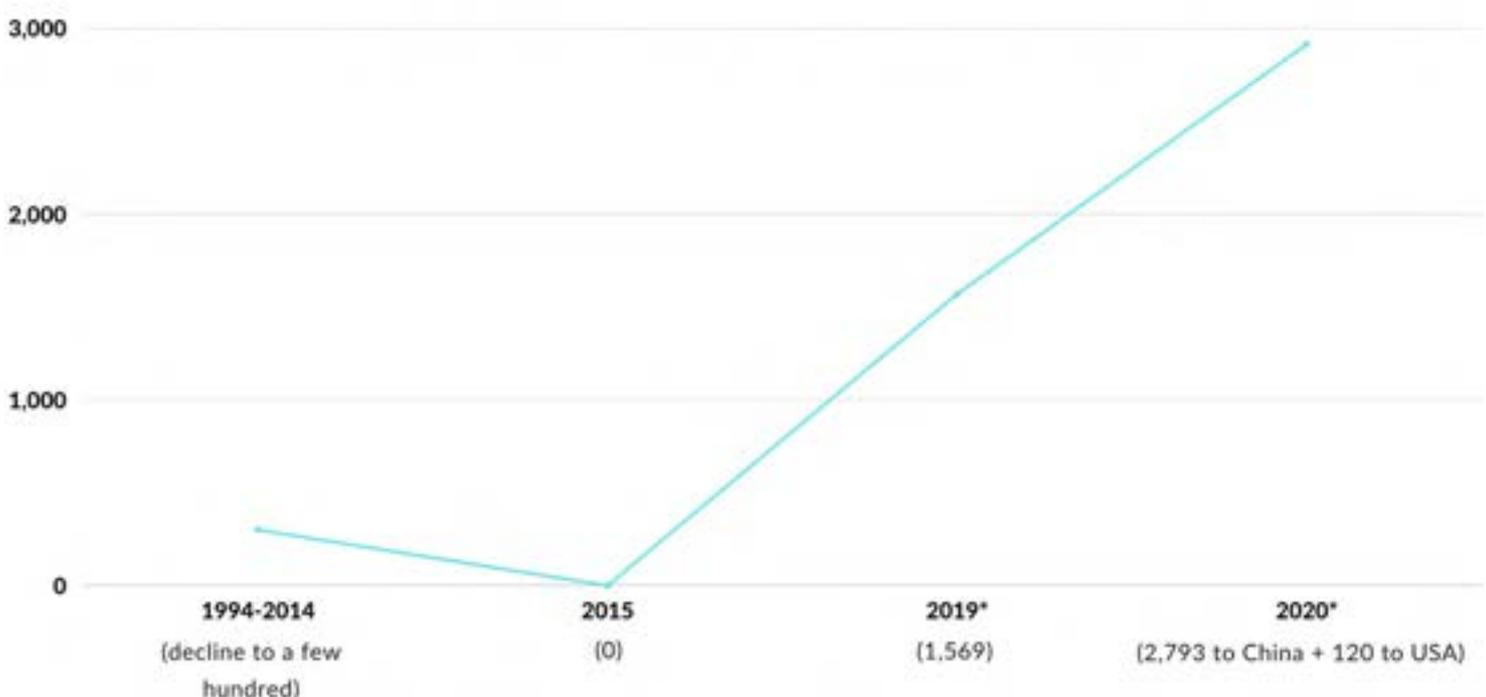
According to Governmental Regulation 13/1994 Article 7-8, during a hunting season or when macaque populations are locally perceived as pests or as increasing in number, permission to capture or kill non-protected long-tailed and pig-tailed macaques can be obtained from officials of the Ministry of Environment and Forestry.

Long-tailed macaques are the most widely traded species of nonhuman primate on earth [68]. Between 2008 and 2019, 450,000 live individuals were traded internationally, primarily for the global research and testing industry [13]. China's 2020 embargo on the export of wildlife, including long-tailed macaques, together with the COVID-19 pandemic, led to an increase in exports from other countries across the species' range, including Indonesia, placing additional pressure on wild populations [13].

Historically, the trade in long-tailed macaques for research and testing involved wild-caught individuals. During the late 1990s and early 2000s, there was a gradual shift away from the use of wild-caught individuals in research to captive bred animals, in part because of the recognition of the negative welfare and conservation impacts associated with the practice [69]. The wild-caught trade has now been largely replaced by the commercial breeding of long-tailed macaques. However, the rapid development and expansion of breeding farms in Southeast Asia that rely on wild-caught long-tailed macaques to establish and maintain the breeding colonies has led to concerns over the legitimacy of captive breeding claims [70].

Indonesia acceded to the Convention on International Trade in Endangered Species of Wild Fauna and Flora CITES in 1978 and it entered into force in 1979. The country has been exporting long-tailed and pig-tailed macaques since the 1970s and became one of the biggest exporters of long-tailed macaques in the 1980s, primarily to the USA, Europe, and Japan. The trade at this time involved wild-caught animals only, with thousands of individuals captured and exported every year. According to the CITES Trade Database, the trade in long-tailed macaques reached a peak in 1989 when 16,000 individuals were exported by Indonesia [71].

ANNUAL EXPORTS OF LONG-TAILED MACAQUES



*number of long-tailed macaques recorded as 'F' (F1 individuals: born in registered and approved breeding facilities; F2 individuals: non-human primates who are the offspring of animals who have been bred in captivity. Note that information for 2021 or later is not yet available.

In 1994, Indonesia began to regulate the export of wild-caught long-tailed and pig-tailed macaques. Exports of these two species were restricted to “F1” individuals - those born in registered and approved breeding facilities. Wild macaques could only be trapped for the purpose of replacing breeding animals. For example, in 2009, the Department of Forestry allowed 10,000 wild macaques to be trapped for breeding facilities. At the time there were 12 breeding facilities registered with the Department of Forestry [72].

Between 1994 and 2014, the number of exports decreased significantly to just a few hundred a year. In 2015, exports stopped completely, and no long-tailed macaques were exported for four years. In 2019, however, the export trade resumed when 1,569 long-tailed macaques recorded as captive-bred were exported, mostly to China. In 2020, Indonesia recorded the export of 2,793 captive-bred individuals to China and 120 to the USA.

Indonesia’s international trade in macaques is not limited to live individuals. In 2019 and 2020, CITES records indicate that specimens such as blood and serum, removed from long-tailed and pig-tailed macaques, were exported to Australia, Denmark, and the United States. Denmark reported the import of 198 specimens from captive-bred individuals for “scientific purposes”. Indonesia reported exporting 550 specimens to the US, sourced from captive individuals, for “trade” (commercial) purposes [71].



Cruelty Free International, Monkeys at farm in Cambodia

According to the CITES database, exports of pig-tailed macaques have most often consisted of a few hundred individuals per year since 1978. However, 1,354 individuals were exported in 1983, 1,308 in 1992 and in 1993, the export of 2,140 individuals was recorded [71].

In 2021, in a major departure from the regulations that had been imposed in 1994, the Indonesian government allowed the export of wild-caught long-tailed macaques to resume, setting a quota for the capture and export of 2,070 wild long-tailed macaques. The quota was allocated to two primate export companies: CV Primaco (1,200) and CV Inquatex (870). Capture was permitted to take place in East Java, Central Java, West Java, Yogyakarta, and South Sumatra [73].

The resumption of wild macaque exports is at odds with the concerns raised by several bodies and organizations over the negative impacts caused by the capture and removal of wild nonhuman primates from their natural social groups and native habitat. For example, the European Union, a major importer and consumer of long-tailed macaques in research, has acknowledged that animal welfare, animal health and ethical problems arise from the capture of wild nonhuman primates. As a result, from November 2022, only nonhuman primates who are the offspring of animals who have been bred in captivity (F2/F2+ generation) will be allowed to be used for scientific purposes in the EU [74].

There are strong moral and scientific concerns regarding the use of nonhuman primates in research and toxicity testing [75,76]. Macaques and other animals are subjected to experiments that cause substantial pain and suffering. Despite the general biological similarities between nonhuman and human primates, the effect of a drug or chemical can differ between species [77]. Similarly, the behavior and expression of diseases that must be created in species in which they would not naturally occur may not mirror the same diseases' behavior and expression in humans [78].

Long-tailed macaques are primarily used in toxicity tests. These are carried out to assess whether there are adverse reactions to a particular chemical or drug, primarily for the purpose of developing commercial products for humans. The tests are carried out by forcibly administering different concentrations of a substance, sometimes far exceeding the concentration to which a human would normally be exposed, over different periods of time. Some macaques die during testing, and others suffer visible effects like hair loss, skin problems, weight loss, vomiting, seizures, difficulty breathing, or invisible effects like internal bleeding or organ failure. No pain relief is given to the animals because it would interfere with the tests. Surviving animals are always killed at the end of toxicity tests and their bodies dissected and examined.

7.5 DOMESTIC TRADE

7.5.1 BREEDING FARMS

Information about 13 long-tailed macaque breeding centers across Indonesia was extracted from a selection of theses, dissertations and annual government reports published online. Twelve of the 13 centers were reportedly still active at the time of writing. See Appendix III for details about these breeding centers.



The establishment of breeding companies is regulated by the Ministerial Regulation of Forestry No. P.19/Menhut-II/2005. Permits are granted for five-year periods which can be extended. Cage types range from individual indoor cages to outdoor group enclosures. Several breeding companies previously managed islands on which introduced macaques live freely, with individuals captured and sold regularly.

Breeding companies produce macaques with varying levels of Specific Pathogen-Free (SPF) certification. These certification levels are intended to guarantee that individual macaques are free of a number of common pathogens, which is necessary to ensure reliability and safety. There have been concerns regarding the validity of the trade in captive-bred long-tailed macaques for several years following the rapid development and expansion of farms in Southeast Asia. [79] Such concerns include the misuse of CITES source codes on export permits with claims that wild-caught long-tailed macaques have been bred or born in captivity. Concerns have also been raised about the validity of SPF certification for macaques who have been “laundered” or have been housed in close contact with wild-caught individuals [80].

Indonesia has reportedly had long-tailed macaque breeding programmes in operation since 1994, but legitimate questions have been raised about such programmes [81]. Wild long-tailed macaques have been captured from populations that have been introduced on small islands (e.g. Tinjil and Deli) and reported to CITES as bred in captivity (C) and born in captivity (F). CITES Resolution Conf. 10.16 (Rev.) requires that genuine C and F animals are bred in a closed environment where variables can be strictly controlled [82]. The CITES Management Authority in Indonesia categorizes these islands as a type of breeding operation and thereby misrepresents the source codes on CITES export permits by classifying the long-tailed macaque from these islands as F or C.



However, the habitat on these islands is precisely that which is native for long-tailed macaques, and is only different from the 'mainland' by virtue of being separated from it by a body of water. Controls are absent. These long-tailed macaques are subject to the same conditions as other wildlife on the islands, and they directly contribute to and are part of the ecosystem there. They clearly fail to meet the CITES F or C criteria. They are wild, and those exported should be classified appropriately.

7.5.2 DOMESTIC RESEARCH

Macaques are not only exported for biomedical purposes but are also used for biomedical purposes in large numbers within Indonesia in both commercial and non-commercial facilities. Long-tailed and pig-tailed macaques are used domestically for research on genetics, virology, stress, Covid-19, vaccine production and more [83–89]. Between 2010 and 2022, the use of 2,185 long-tailed macaques used in non-commercial biomedical research was documented in 35 Indonesian university undergraduate and master's theses.



We were unable to find any specific regulations that prohibit wild-caught macaques from use by non-commercial research institutions or universities; wild-caught macaques may be used at such facilities for research purposes [90,91].

7.5.3 MARKETS

Live animal markets can be found in many Southeast Asian countries in different forms. In Indonesia, live animal markets, which are commonly known as bird markets (*pasar burung*) due to the prevalence of birds for sale, are found in most large cities. These markets are the site and source of immense animal suffering and are substantially detrimental to wildlife conservation. They also present a serious hazard to human health.



Long tailed macaques at Jakarta Animal Market Jati Negara. Photo: Joan de la Malla (JAAN)

An array of wildlife is sold openly, alongside and often stacked above and below domestic animals. Various mammals and reptiles are sold as pets and to a lesser extent for consumption and traditional medicine. Indonesia's animal markets differ greatly in size, from large multi-story markets in big cities to small-scale local pet shops in villages and rural areas. The capital's notorious Pramuka Bird Market contains over a hundred individual shops and is possibly the biggest animal market in Southeast Asia. During a single survey of Pramuka market in 2014, more than 16,000 birds were recorded on display [92]. The exact number of bird markets across Indonesia is unknown, but most cities on the islands of Java, Bali, Sumatra, Sulawesi and Kalimantan have at least one large bird market and several other smaller markets and shops. The animals offered for sale in these markets are typically non-protected species, but despite regulations on which species are allowed to be sold, protected species are regularly observed [4].

The conditions in the markets are very poor in terms of hygiene and welfare. Animals, sometimes mixed-species, are usually crammed together in small cages and often stacked in close proximity or on top of each other, meaning that physical contact or contact through feces and other bodily fluids can easily occur. Wild and domestic animals may be kept in close proximity to their natural predators, or may be kept in sight of their conspecifics being slaughtered. In open-air markets, animals are often kept for hours in the scorching sun with little or no water and food. Many visitors to the markets report seeing dead animals in the cages, and on occasion have observed them being fed to those who are still alive. Being kept under such dirty, cramped and stressful conditions with poor ventilation renders these animals more susceptible to infection and hence poses a greater risk of zoonotic disease transmission [93].

For many decades, primates have regularly been sold openly in Indonesia's bird markets. For example, a survey carried out between 1997-2008 in Medan, North Sumatra, found nearly 2,000 primates on sale at a rate of about 30 primates per market visit. Long-tailed macaques were the most common species found [94]. In a later survey that was carried out between 2011 and 2014 and monitored six animal markets across Java and Bali, an average of 25 primates per market visit were recorded [4]. A total of 1,272 primates from eight different species were recorded over 51 surveys. Again, long-tailed macaques were the most commonly observed primate species on display, with 1,007 individuals recorded.

More recently, between 2018 and 2021, a local conservation community (Garda Animalia) recorded over 1,013 primates for sale in bird markets, from six different species, including Javan langurs, slow lorises and pig-tailed macaques. Over 90% of the primates recorded, however, were long-tailed macaques, who were observed for sale in 20 of the 46 markets surveyed. The number of long-tailed macaques reported in these markets is increasing, nearly 40% more individuals recorded in 2021 than in 2019 [95].

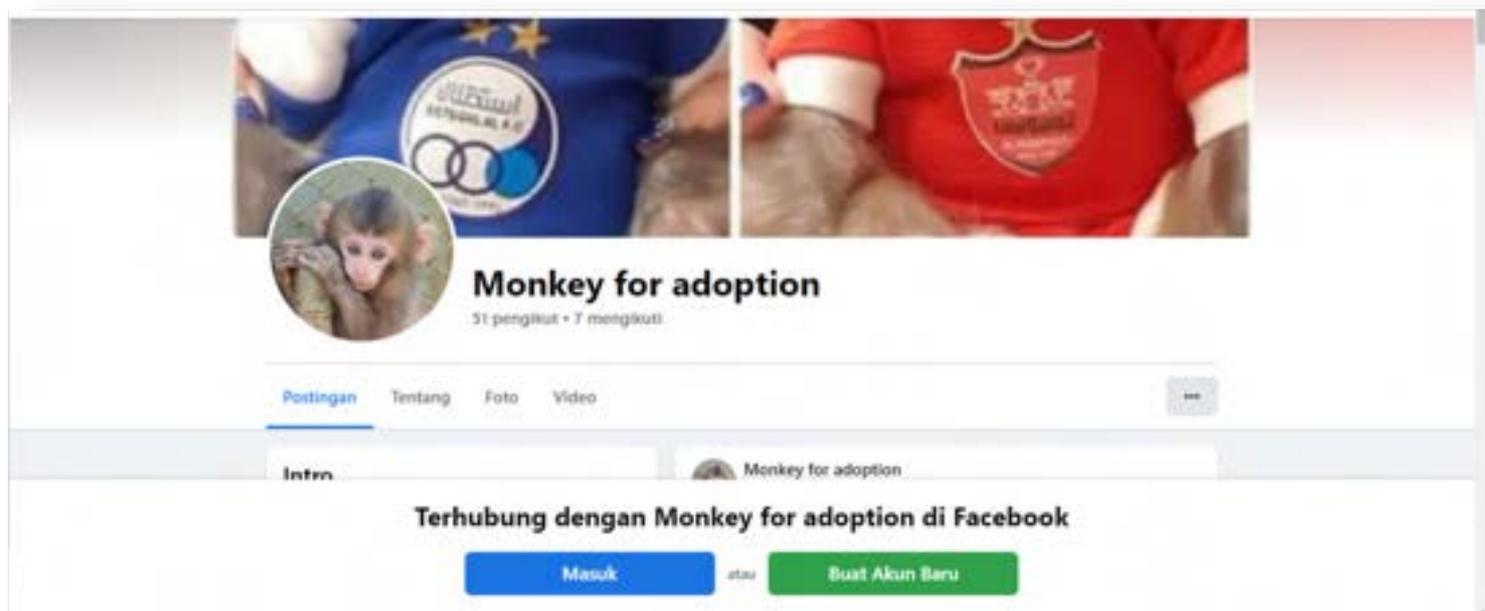


Long tailed macaques at Jakarta Animal Market Jati Negara. Photo: Joan de la Malla (JAAN)

The Government Regulation No. 8, 1999, "Concerning the Utilization of Wild Plants and Animal Species" Chapter V states that unprotected wildlife can only be traded if traders submit trade records annually. All such trade must be accompanied by legal documents. Much of the trade in Indonesia's bird markets is not conducted legally, as these animals have been taken from the wild without permits or formal trade documents. When poachers or smugglers are caught in the act, legal action may be taken by the authorities. But in no case has the government intervened in the illegal trading conducted at bird markets.

7.5.4 ONLINE MARKET

Traditionally, Indonesia's live animal markets were restricted to the more conventional physical markets. However, in recent years there has been a gradual shift towards virtual markets. Since the late 1990s, the country has seen a rapid rise in internet users, particularly since the introduction of smart phones. Now, more than 50% of Indonesia's population has access to the internet [96]. Like many other businesses, wildlife traders (legal and otherwise) have found online platforms a convenient and highly profitable environment in which to operate. Initially, e-commerce sites and discussion forums like Carousell, Tokobagus and Kaskus were used to sell products, but following pressure from local NGOs, these sites began to ban trade in wildlife [97,98]. In the early 2010s, traders began to utilize the emerging "animal lover community" groups on the highly popular social media giant Facebook [99]. With Indonesians being among the most prolific social media users in the world, there is no shortage of potential buyers on these sites. These groups provide space for traders to safely and easily advertise their stock to tens of thousands of potential buyers. The building of reliable contacts along the complex trade chain from source habitat to market location is no longer required for wildlife dealers.

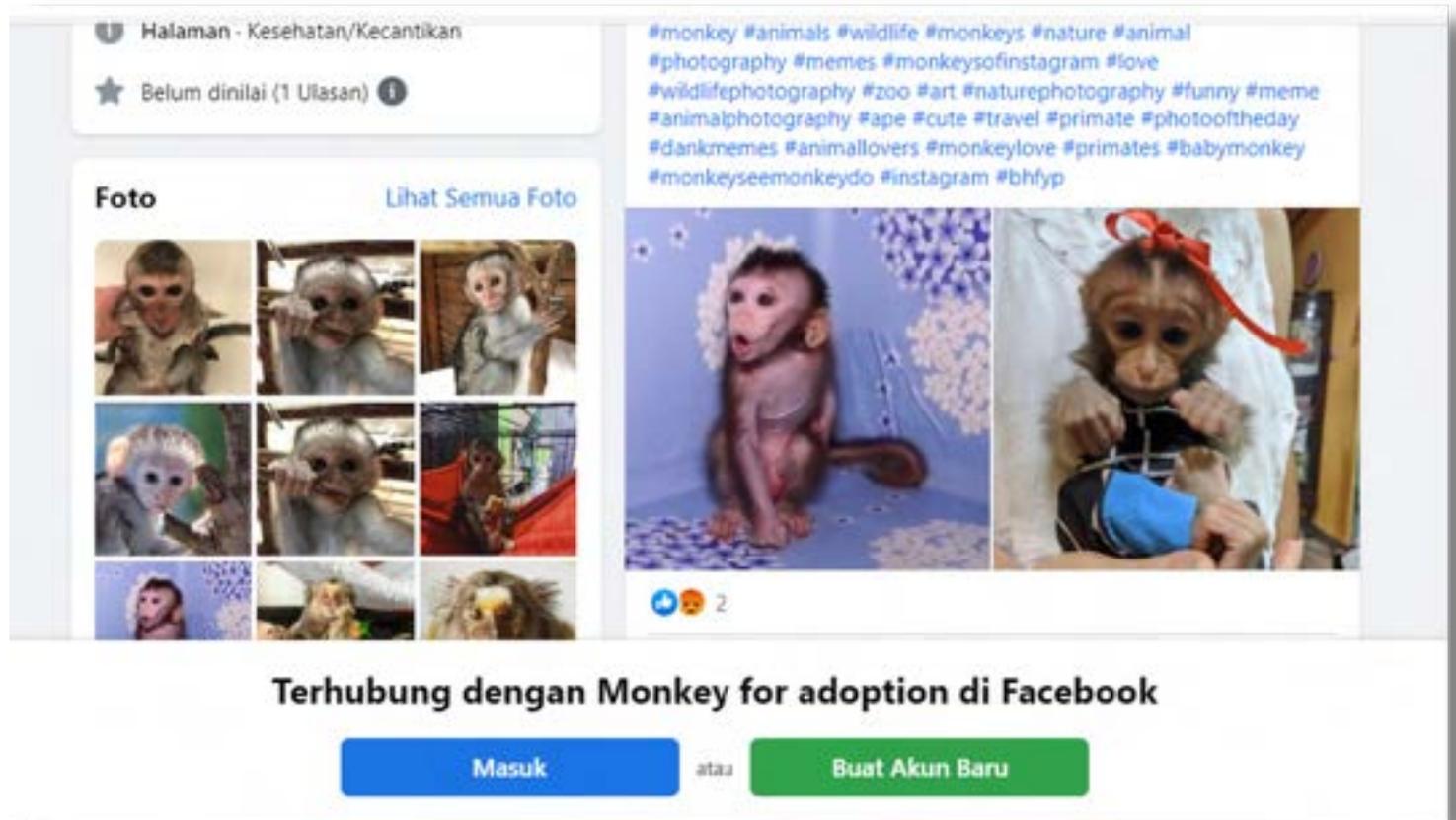


SMACC ID reference: recmR7F8YmkbPOFJo 1

Despite the existence of policies that clearly forbid the sale of all animals and animal parts, wildlife trade on Facebook and other social media platforms continues unabated. Social media sites are difficult to monitor and regulate by the authorities due to the sheer volume of trade taking place and the anonymity that the platforms provide [100,101].

Traders and buyers can set up fake names and accounts, use code words for advertising illegal goods, and Virtual Private Networks (VPNs) to hide their real Internet Protocol (IP) addresses and keep their identities hidden [102]. Private and secret trade groups cannot be viewed publicly and require a special request from a member to join. The use of courier services and online payments means that exchanges can take place anonymously, obviating the need for any face-to-face encounters. Illegal wildlife traders can also use third-party bank accounts known as rekber to avoid leaving a money trail between the trader and the buyer [103]. Further, researchers have noted that social media platforms like Facebook regularly serve as meeting points for people involved in trade, after which discussions are shifted to encrypted messaging apps like WhatsApp, which is also owned by Facebook's parent company Meta [104].

A huge variety of wildlife species is sold openly on Facebook in large volumes including birds, reptiles and mammals. Unsurprisingly, long-tailed macaques are commonly found on social media posts and videos. In a recent survey by Garda Animalia (a local conservation community) of just under 200 Indonesian wildlife trade groups on Facebook from the period January 2020 to December 2021, a total of 4,719 individual long-tailed macaques were observed on sale from 2,970 separate advertisements. More than 2,400 trader accounts were identified, the majority of which were based on the island of Java. Across this two-year period, just under 6,000 “Want-to-Buy” posts were also recorded. The Want-to-Buy posts increased in 2021, suggesting that demand was not only high, but was on the rise.



Terhubung dengan Monkey for adoption di Facebook

Masuk

atau

Buat Akun Baru

SMACC ID reference: *recmR7F8YmkbPOFJo 2*

7.5.5 PETS

Practices associated with keeping pets are variable. Animals kept as pets may or may not be welcome inside a family’s home, for example, or contribute to a family’s income [105]. Here, in relation to macaques, we use the term broadly, referring to animals kept by humans and reliant on them for food, outside of the context of zoo animals or “working” macaques such as Topeng Monyet (section 7.5.6) or those used to harvest coconuts in some regions [106].

Although the sale of wild primates in Indonesia is technically regulated (section 7.5.3), there are no regulations on the keeping of long-tailed or pig-tailed macaques as pets. Because there are no records kept, it is impossible to estimate the number of pet macaques kept, but NGOs receive many reports each year. Most of these are taken directly from the wild [13].



A survey of Indonesian wildlife trade groups on Facebook between January 2020 and December 2021 identified a total of 265 individual long-tailed macaques being kept as pets, representing only a very small cross-section of the macaque pets kept in the country. These individuals were not being offered for sale - the owners were merely showing off their pets on social media [95].



The keeping of primates as pets is directly detrimental to the welfare of the individuals involved, to the survival of wild populations, and to human health and safety [105,107,108]. Further, when the practice is regarded as “normal”, then more people may be motivated to obtain and keep macaques, thus having additional, indirect negative effects on macaque welfare and conservation [109].



Most pet macaques are obtained as infants. Young macaques are physically and psychologically dependent on their mothers for years and maternal deprivation often causes serious, irreversible psychological and developmental harm. Separation from groupmates is also problematic and causes further social difficulties. Wild-caught individuals face the additional trauma of capture and removal from their natal group.

SMACC ID reference: recwYkipRzI992Pme 10

Though macaques are adaptable, they are biologically wired to live in large social groups (section 6.3) and to spend large portions of each day traveling, foraging and interacting with one another. When kept as pets, they are denied the opportunity to perform many of the behaviors that they are innately motivated to do. This sustained frustration is a root cause of the severe psychological abnormalities that are so common in captive macaques, which are often visible in the form of repetitive or otherwise abnormal behavior [105].

Naturally, pig-tailed and long-tailed macaques would subsist on a wide variety of wild fruits, leaves, and other plant parts, insects, bivalves and other small animals [110]. Pet macaques are rarely offered suitable food; in Indonesia, they are usually given diets consisting primarily of rice, milk, bread, cultivated fruits or even junk foods and sweets [111]. This can cause developmental issues, dental disease, obesity and other nutritionally-linked diseases.



As young primates grow and approach maturity, their behavior often becomes increasingly unpredictable and they can present a serious danger to the people around them. For this reason, as they age, pet macaques are more likely to be kept confined in small cages, or chained or roped, in which cases tight tethers frequently cause injuries [112]. In all cases, their access to shade, water, warmth and comfort are often severely curtailed. They are exposed to many people, domestic animals, and sometimes human waste. Otherwise, maturing macaques may be set free, but because they lack the skills to cope in the wild and in social groups, they remain close to human habitation, approaching villages, and begging for food. Thus, they present a danger to more people, and human injuries are common. Most often such negative interactions lead to the macaques involved being killed. In addition, such incidents feed public perceptions that macaques are “pests”.

A 2005 survey of macaque owners in Sulawesi revealed that the majority of them (40%) had acquired their pets through trapping. Equal numbers of owners (28% each) reported that their pets had been bought or given to them, 28% reported purchasing the pets and a small number (4%) said that their pets had been caught by dogs [112].

Cross-species transmission of infectious agents occurs between humans and macaques in a variety of contexts [113-116]. Proximity and physical contact between macaques and humans provide the opportunity for infectious agents to pass between the groups and also raises the potential for infectious agents to be introduced to wild populations when formerly captive primates are released or escape, putting wild populations at risk. For example, one study found that a high number of pet macaques in Sulawesi tested positive for *Treponema* bacteria, which can cause debilitating infectious disease in humans [117]. Again in Sulawesi, researchers identified antibodies to a variety of human pathogens (measles, influenza A, and parainfluenza 1 2 and 3) in pet and wild macaques [118]. Performing monkeys in Jakarta were found to have antibodies to a number of human pathogens [119]. Another study documented the transmission to a human of Simian Foamy Virus (SFV) by wild monkeys at a temple in Bali [120]. Close interactions between humans and macaques also expose humans to the risk of serious injuries caused by bites. The number of pet monkey bites in Indonesia is unknown, but the World Health Organization estimates that up to 21% of animal bite injuries globally are caused by monkeys [121].

7.5.6 TOPENG MONYET

Macaques in Indonesia are often used as performers, particularly in a type of street theater known as Topeng Monyet ("masked monkeys"). Drawing on traditional Indonesian dance-dramas, Topeng Monyet did not originate until the 1890s when the traditional masked human dancers were replaced with trained monkeys [122].



Topeng Monyet. Photo: JAAN

As a result, one small village, where monkeys were trained, became known as the “monkey village.” In the early 20th century, the phenomenon was adapted as a means to make money as a type of street performance.



Topeng Monyet masks. Photo: JAAN

Long-tailed macaques are used for Topeng Monyet. They are trained from a young age, with brutal and physically damaging methods, to perform unnatural maneuvers like riding bicycles, walking or standing on their hind legs, dancing, performing tricks, and begging for money in the streets of Indonesian cities, particularly in Java. They are regularly beaten into submission. These monkeys are usually dressed in clothing and the heads of dolls are often put over their heads as masks. They are usually chained by the neck, and their teeth are cut out to prevent them from biting trainers, handlers or observers.

The macaques used to perform as Topeng Monyet are taken from the wild. The removal of their teeth causes severe and chronic pain owing to the exposure of the pulp and nerve endings, and leads to potential infection of the surrounding area, including gums, jawbone and nasal region. In order to train them to walk on their hind legs, the monkeys may be hung upside down or forced, through chaining, to stand up straight for long periods of time. Bipedal walking is not natural for monkeys and can lead to long-term damage to joints and muscles. The macaques are trained and rented out to touts - often street children or other disadvantaged people - who are obliged to pay a percentage of their daily takings to the “boss” [123].

In 2013, president Joko Widodo, who was at the time the Governor of Jakarta, banned the practice of Topeng Monyet across Jakarta, and the Jakarta Animal Aid Network (JAAN) rescued 130 long-tailed macaques over the following three months. This was followed by a ban in West Java, and later an instruction from the Director General from the Ministry of Forestry and Environment on national level that the monkeys should be confiscated and sent to JAAN's rehabilitation facility. Since 2013, 420 such monkeys have been rescued from all over Indonesia, and more than half of these have been returned successfully to the wild. Yet sadly, the practice of Topeng Monyet persists in Indonesia and animal advocacy groups have noted an increase in Java since 2019 [123]. The instruction to ban the practice does not include provision for punishment, but states that monkeys should be confiscated in cases where owners fail to meet their basic welfare needs as defined by the Five Freedoms. Given the nature of the practice, it is impossible to ensure these freedoms, but the police, who are expected to enforce the ban, are rarely knowledgeable enough to make such assessments.



Confiscation of Dancing Monkeys. Photo: JAAN

7.5.7 MEAT AND MEDICINE



Macaques are consumed for a variety of medicinal purposes in Indonesia including as obat vitalitas (“vitality medicine”), which is believed to benefit the skin and the respiratory, digestive, and circulatory systems [124]. It is unclear whether macaque parts used medicinally are effective, and to our knowledge, no relevant studies have been conducted [125].

Macaques are also consumed as meat. Stalls in Jakarta's Mangga Dua shopping district obtain monkey meat by customer special request. A 2018 study found that macaque meat in markets on Sulawesi was cheaper to buy at market than most other wild or domestic meats. Macaques were obtained in large numbers (20-40 per night) by cutting down macaque groups' sleeping trees [126]. Members of several Javanese communities regularly hunt and eat long-tailed macaques, and Javanese oil palm farmers report killing and eating macaques that enter their plantations [127]. Macaque meat has even been found in commercial meatball and soup products in Indonesia, leading one group of scientists to develop an assay that is capable of detecting traces in commercial products [128].

7.6 ONLINE EXPLOITATION

The increasing volume of animal cruelty content freely available on social media is a huge concern for many animal species and in many regions of the world. The Asia for Animals Social Media Animal Cruelty Coalition (SMACC) spent 13 months collecting, collating and analyzing links to cruelty content videos posted on Facebook, YouTube and TikTok and of the over 5,000 links documented, the large majority of them had been filmed and uploaded in Indonesia. Amongst the animals most frequently and egregiously abused to produce social media cruelty content are young long-tailed and pig-tailed macaques [5].

YouTube content in particular can become profitable. The more frequently any content is viewed, liked or shared, the more likely it is to profit from associated advertising. There is a large global market for cruelty content, and even those outraged by it can inadvertently boost reach and profitability by commenting and sharing in outrage. An increasing number of people in Indonesia have become aware that they can profit from online cruelty content.



SMACC ID reference: rectWqdlmYN3dyrp6 6



SMACC ID reference: rectbxru4p98HRAmH 1

Defining animal cruelty as “a range of human behaviors, performed intentionally or unintentionally, that cause animals harm or suffering which may be immediate or long-term, physical, emotional or psychological”, SMACC considers animal cruelty content to be “anything that has been posted on a social media platform by an individual, organization, or business, that depicts animal cruelty or suffering for any reason” [5]. Cruelty content ranges from the ambiguous and unintentional to the obvious and intentional. The vast majority of content documented by SMACC was categorized as “obvious and intentional.”



Among the less obvious forms of macaque cruelty on social media are posts that feature pet macaques being washed, fed and otherwise handled. The welfare issues that are faced by pet macaques are discussed in section 7.5.5. These issues are rarely well-understood by the general public and those watching such content are unlikely to understand the suffering that the individual animals involved are likely to be experiencing. Many people find young monkeys to be irresistibly cute, and viewing such content may convince them that macaques can easily and humanely be kept as pets, especially as they often are portrayed as children cared for by human parents [10,47]. As a result, thousands more may be caught and kept.

SMACC ID reference: recPfhoRcBFDX2LkJ 1

Social media has enabled the formation of so-called “monkey loving communities” in Indonesia. Participants meet both online and offline with their pet monkeys adorned in human clothing. Influential celebrities, too, both from within and without Indonesia, sometimes flaunt their pet monkeys online, again helping to shape inaccurate and harmful public attitudes towards macaques. These communities meet monthly to show off their infant monkeys dressed and get awards such as best dressed monkey.

"Monkey Community" membership card

KARTU TANDA PEMILIK
KOMUNITAS MONYET INDONESIA

NIK	[REDACTED]
Nama	: CANDY LAURA
J.Kelamin	: BETINA
Alamat	[REDACTED]
hoby	: NGEMPENG JEMPOL
jenis	: MONYET PANTAI LUCY
nama latin	: MACACA FACICULARIS
Warna	: PUTIH
Makanan	: SUSU , BUAH-BUAHAN
Pemilik	[REDACTED]
M.Berlaku	: SEUMUR HIDUP



05-04-2020



There is an alarming volume of more blatant online cruelty content involving infant macaques - often produced in Indonesia. Captured from the wild, infants only days or even hours old are teased, frightened, punished and tortured on film, often suffering substantial physical harm as well as emotional stress. Entire channels are dedicated to such content, and despite the attempts of many people and organizations to have them removed, they persist. These channels have become meeting places for people who enjoy watching the animals suffer and where people post vile and abusive comments encouraging more violence towards monkeys. Such abuse has become increasingly violent. Owners of some “monkey hatred” channels are now offering custom-made videos of baby monkey torture. Other individuals have set up accounts on private platforms. A US-based private group on the platform Telegram offered members the opportunity to pay to have to have baby monkeys tortured and killed in customized ways, live on camera from Indonesia. These sadistic acts, which inflicted appalling levels of suffering and distress, included cutting off a monkey's ear using scissors, using knives to cut off an arm and fingers, and dousing a monkey with flammable liquid and setting him on fire [129].

Blatant cruelty carried out in Indonesia and posted online is a violation of Indonesia’s Government Regulation No. 95 of 2012 (Appendix I), but it is notoriously difficult to identify and apprehend the perpetrators. There have been some successes; for example in 2021, The South Jakarta Maritime and Agricultural Food Security Sub-department confiscated three macaques that had been kept and tortured online by a YouTube content creator in Jakarta [130]. The owner of the channel admitted that he created controversial content specifically to get the attention of foreigners and increase reach and profitability. The monkeys are now safe in the hands of the Jakarta Animal Aid Network. Unfortunately, this confiscation was a rare occurrence and there are many more monkeys being tortured online today.

7.7 OTHER MEDIA

Table 2. Television shows featuring pet macaques on Youtube

Date aired	TV station	Program Name	# views	# likes	# comments
March 31, 2020	RCTI	Silet	8,707	48	8
April 16, 2020	Trans TV	Rumpi	19,360	175	16
June 24, 2020	Trans TV	Safana	791	7	3
July 1 2021	Trans TV	Rumpi	75,262	1,100	423
July 15, 2021	Net TV	IPOP	172,968	1,900	242
January 24, 2022	Trans7 TV	Bercanda Pagi	25,672	447	25
February 24, 2022	Net TV	Tonight Show	3,238,384	68,000	2,757

In recent years, pet macaque posts have boomed on Indonesian social media, following posts by prominent Indonesian figures featuring their own pet macaques.



A rapid survey of such content on Instagram found an eightfold increase in pet macaque posts between 2019 and 2021, and the number of YouTube posts tripled from 2019 to 2020 [131]. Such exploitation of macaques has met with disapproval and reaction from many animal activists. However, this condemnation has not prevented Indonesian public figures and influencers from continuing to post images of their own pets. The controversy and public engagement that this issue has raised on social media attracted the attention of several television channels who saw the opportunity to boost their own audiences. The result was that some of these public figures were invited to appear with their pet macaques on television shows.

SMACC ID reference: recVunXuXmr5ULhIA



SMACC ID reference: recD0f5UtIDBMGEqw 1

Garda Animalia used YouTube to assess Indonesian television programming that aired between November 2019 and March 2022, identifying six TV programs from four different channels that featured macaques kept as pets. All of them were infants, and were dressed in clothing. Owners talked about the 'fun' side of having macaques as pets and none of the programs discussed the welfare, conservation or health issues raised by the practice. One of these features (the Tonight Show from Net TV) had been viewed over 3 million times and liked by 68k users on YouTube (Table 1).

Even with the growing importance of social media in shaping Indonesians' perceptions and opinions, television is still the media with the widest reach and remains the primary source of information for most people in the country [132]. Programs that depict macaques in domestic settings have a huge impact on people's perceptions, and normalize their keeping as pets [47,133]. Public figures and digital influencers, like Irfan Hakim, are clearly responsible for the boom in pet macaque content on social media [134,135]. Without immediate action to stop this loop, it is likely that we will see even more such content and an increase, rather than a decrease, in trade.



8. WHY THESE ISSUES?

“

...constant sightings and considerable numbers of macaques in fields, on the edges of forests, and in parks does not necessarily translate into abundance throughout their range... ”

WHY THESE ISSUES?

8.1 PERCEPTION OF ABUNDANCE

Long-tailed macaques, and to some extent, pig-tailed macaques, are considered to be synanthropic species, meaning that they are capable of living, and even thriving, alongside human beings. They are usually easy to spot in the human-dominated landscapes that they've colonized - in the case of macaques, these landscapes range from rural, agricultural areas where they might forage amongst the crops people have planted, to parks or temples where they may be fed by visitors - even to busy city centers, as long as there is a food source nearby.

Macaques normally have to work hard to find food; in order to eat, they need to forage. If human activities provide a readily available source of food (in the form of temple offerings, rubbish, or fields of corn), then macaques, who are naturally adaptable, will take advantage of this. But constant sightings and considerable numbers of macaques in fields, on the edges of forests, and in parks does not necessarily translate into abundance throughout their range. Research conducted in Baluran National Park found that macaque population density was less than expected throughout the park, but that the macaques were drawn to the areas where they were frequently fed by tourists, thus creating the illusion of overabundance [136].



8.2 NEGATIVE INTERACTIONS

As we have seen, negative interactions between human beings and macaques are at their root caused by human behavior, whether that means the clearing of macaque habitat and planting of crops, the escape or inappropriate release of former pet macaques, failure to secure rubbish, or intentional feeding of wild populations. Despite this, it is the macaques who are then labeled as pests and treated with the brutality that usually accompanies such a label. In such situations, individuals, local communities and governments often turn towards what seems like the most obvious quick fix: killing large numbers of macaques or capturing them alive and selling them as meat or medicine, as pets, or in vast quantities to companies that breed and export macaques for research.



Such measures may or may not solve the immediate problem. In all cases, these measures cause unimaginable suffering, and exacerbate the global decline of species that play key roles in their ecosystems, and whose disappearance would contribute to a cascade of negative consequences that would ultimately cause problems for human beings that rival those "solved" by killing or capture.

8.3 PROFIT

The exploitation of macaques in Indonesia is inextricably bound up with the quest for profit. The majority of macaque exploitation takes place far beyond the subsistence level. We have seen that live macaques and their meat and body parts are sold at urban markets, and that macaques are regularly shot or poisoned when they encroach on commercial plantations that have replaced their habitat. The international trade in macaques as research subjects is estimated to have generated \$1.25 billion US Dollars from 2010 to 2019, and has boomed since the beginning of the Covid pandemic. Individual macaques are worth more than \$2,000 on the international market for research animals [68].

Some macaque exploitation is conducted at poverty level; for example, those that use trained monkeys as Topeng Monyet are often street children, who rent their monkeys from a trainer who takes a portion of their daily profit. This is not reason to let the practice persist, but illustrates the need to address poverty in a way that does not require the cruel exploitation of others.

8.4 TRADITION

Macaques and humans have been coexisting in Indonesia for millennia, and this relationship has not always been free of difficulty or exploitation. There are cultures within Indonesia whose traditional practices involve the exploitation of macaques. For example, the Mentawai people hunt and consume macaques, and their infants are often taken and raised as pets [137]. While such a practice does raise concerns about both macaque and human health and welfare, the scale on which truly traditional exploitation occurs is small compared to that which is seen across the country on a regular basis. Of greater concern is that macaque meat and macaque infants are transported to and sold at urban markets, and that the pet trade has become as prevalent across the country as it is. Other practices, like Topeng Monyet, are relatively new, having originated in the 1890s, drawing on a much older theatrical tradition in which masked human (not monkey) dancers portray mythical or natural beings [122,138].

While there are long-lived Indonesian traditions that involve the exploitation of macaques, there are also traditions that require their protection. For example, while macaque parts may be used in traditional medicine by some groups of people in Indonesia, macaques are of religious importance to others, particularly on the island of Bali [125].

8.5 "LOVE", IGNORANCE, AND LOCKDOWN

Despite the inescapable welfare problems involved in keeping macaques as pets, it is likely that many people who do so are unaware of the suffering that they are causing. Motivations for pet keeping vary enormously between cultures and between individuals; studies have shown that motivations for pet primate keeping range from status to novelty to profit to companionship [112,139,140]. It is possible that the recent apparent increase in macaque keeping derived in part from an intensified desire for companionship under lockdown conditions due to the COVID-19 pandemic. Social media accounts dedicated to young monkeys who are dressed and treated as though they were human babies (or more accurately, living baby dolls) do seem to bolster the idea that many owners "love" their pets, and perhaps simply do not understand the harm that they are causing by keeping and treating them as they do.



9. CONSERVATION IMPLICATIONS

“

The wild capture of unprotected macaques is efficiently eradicating both long-tailed and pig-tailed macaques and their associated ecosystems.

”

CONSERVATION IMPLICATIONS

9.1 NEGLECTED ECOLOGICAL ROLES

When a species of wildlife is removed from an ecosystem, it negatively affects that ecosystem's balance and its ability to regenerate and provide for the other species in the same ecosystem [141]. Some wildlife species are specialists and others are generalists. Generalists are able to fill multiple roles within an ecosystem, and can help to "cover" the roles of specialists that have become rare or disappeared [142]. Long-tailed macaque and pig-tailed macaques are both generalists in their respective ecosystems, meaning that they fill the roles of predator, prey and seed disperser. Their presence ensures the regeneration of plants in areas where larger mammals have disappeared, for example in the savannah in Baluran National Park in East Java [143]. There is debate about whether these macaques, given their abilities to utilize different habitats, can have negative impacts on ecosystems, but it's agreed that balanced populations do not. They are natural parts of their ecosystems and extremely important for the survival of these areas and all of the other species that inhabit them.



Photo: David Cook Wildlife Photography. Licensed under CC BY-NC 2.0

Recently, a biologist from Gadjah Mada University stated that the removal of 1,500 long-tailed macaques from Yogyakarta would not be harmful to the local ecosystem [144]. This is simply untrue. Even synanthropic populations perform vital roles in local ecosystems.

9.2 EXTRACTION RATE VS CURRENT POPULATION SIZE

As we have seen, unprotected macaques are being removed from the wild in Indonesia in huge quantities. Officials in Indonesia continue to state that there are too many long-tailed macaques and too many pig-tailed macaques. However, these ideas are based on overestimations [145,146]. It is not possible to extract densities from anthropogenic areas (those that are altered, utilized and occupied by humans) to non-anthropogenic areas. In fact, both species are disappearing rapidly from forests and other non-anthropogenic areas [3,147]. Extraction quotas based on overestimations are unsustainable, not only for the target species, but for the ecosystems from which they are extracted. The wild capture of unprotected macaques is efficiently eradicating both long-tailed and pig-tailed macaques and their associated ecosystems.

Luckily, this is reversible - if it ends now. Ending wild capture while also ending the provisioning of the two species will enable them to regain their population balance in their own ecosystems, and provide a much-needed boost to the conservation of Indonesian ecosystems.

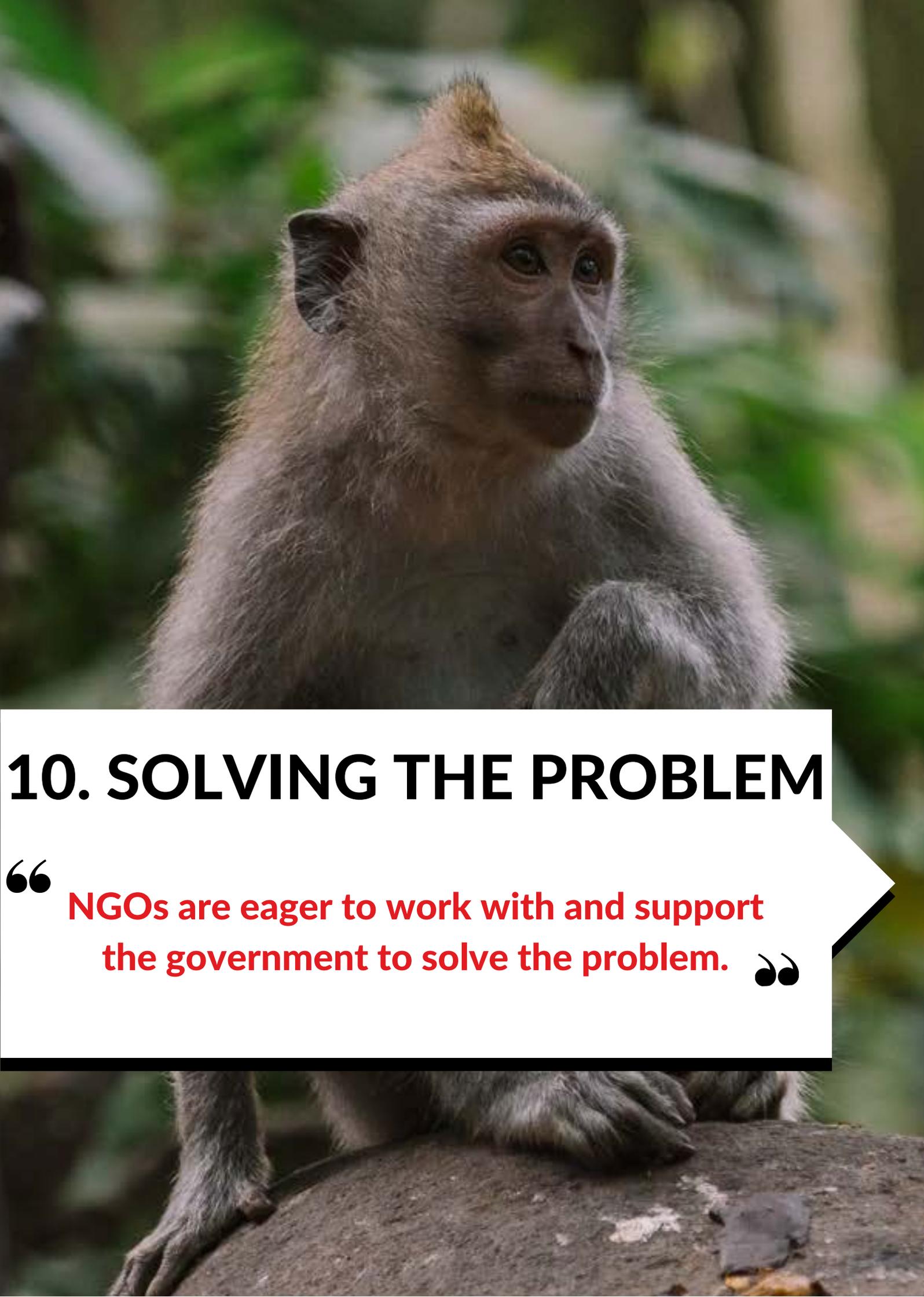
9.3 NEGLECTED CULTURAL ROLES

The intense provisioning of unprotected macaques in Indonesia enables populations to grow unsustainably in some areas, and entices them to approach people, which can lead to negative interactions. It is of utmost importance that provisioning is only conducted in a managed and controlled setting such as temple sites and other important religious and cultural sites. Furthermore, if macaques are being provisioned, the practice should not be abruptly ceased. This can lead, for example, to crop foraging, as we have seen during the pandemic in Bali [148]. Unprotected macaques are of great importance in many of the religions and cultures in Indonesia.



Earlier in this report, we briefly discussed the important cultural roles occupied by monkeys in Indonesian culture. Pig-tailed and long-tailed macaques have interacted and coexisted with humans for millennia in Indonesia and they have been able to adapt to human presence, successfully coexisting until now [8]. However, with the current pressures that both species face, this may not last much longer.

Indonesia has a choice. The authors of this report highly recommend and deeply hope that the choice will be made to protect these two species in Indonesia and that they will receive the focus and conservation efforts that they deserve.



10. SOLVING THE PROBLEM

“ NGOs are eager to work with and support the government to solve the problem. ”

SOLVING THE PROBLEM

10.1 LEGISLATION, ENFORCEMENT AND GOVERNMENT DEPARTMENTS

Neither long-tailed macaques nor pig-tailed macaques are protected under Indonesia's Wildlife Conservation Law. Animal welfare legislation is technically applicable to both species but is often poorly enforced. Positive quotas have recently been introduced for the capture and export of long-tailed macaques despite the globally growing understanding about the threats that the species faces and the recognition of the suffering involved in the wild-caught trade. Government departments have issued advice that encourages the shooting of macaques in contravention of national firearms legislation. All macaques need protection under the National Wildlife Conservation Law. Zero capture quotas should be maintained for all primate species. The 2018 instruction to ban Topeng Monyet at the national level has not yet been fully carried out. The instruction to ban Topeng Monyet was issued via a circular, which is an internal administrative instrument which notifies and provides explanation and guidance, but does not include any provision for any punishment. Those exploiting monkeys for Topeng Monyet are rarely processed by the police, as law enforcement officers rarely have sufficient knowledge to assess such situations or of relevant legislation. Legislation relating to the exploitation of macaques needs to be fully understood, respected and enforced by the relevant government departments.



10.2 NON-GOVERNMENTAL ORGANIZATIONS

Non-Governmental Organizations (NGOs) that rescue and rehabilitate macaques and help mitigate negative human-macaque interactions are already overwhelmed. However, many such NGOs are eager to work with and support the government to solve the problem. They are in a position to help the government create, implement, monitor and enforce the legislation required to address macaque exploitation in Indonesia. In order to do so, support from officials in the form of partnerships, grants or otherwise is essential.

10.3 RELEVANT RESEARCH AND INITIATIVES

There are many organizations, large and small, working in Indonesia to protect the country's unprotected macaques. The profiles below are just a few of them.

Animal Friends Jogja (AFJ): AFJ is an animal protection organization founded in 2010. They are passionate about protecting macaques. Through creative online public awareness, direct community education, grassroots activism, and collaboration with other related organizations, AFJ aims to eradicate macaque exploitation and encourage communities to support their habitats in the wild.

Animals Don't Speak Human (ADSH): Officially registered as Yayasan Perlindungan Hukum Satwa Indonesia works to raise awareness about animal law in Indonesia and encourage its enforcement. Furthermore, ADSH also assists other animal protection NGOs through non-litigation work such as conducting case analysis, providing legal advice and designing strategies to encourage the government in efforts to protect macaques in Indonesia.

The Jakarta Animal Aid Network (JAAN): Locally known as Jaringan Satwa Indonesia, JAAN works to save and protect long-tailed macaques and pig-tailed macaques. Among other initiatives, JAAN has created a K9 wildlife unit to trace the smuggling of baby macaques. JAAN confiscates and rehabilitates smuggled macaques in their specialized rehabilitation centers. These centers, located in Jakarta and West Java, care for many former Topeng Monyet monkeys as well as others confiscated from the trade. When possible, once integrated into social groups, rehabilitated macaques are released back to the wild in safe areas and with government permits.

The Long-Tailed Macaque Project (LTMP): LTMP is an international initiative, collaboration and registered charity aiming to raise awareness about long-tailed macaques and conserve long-tailed macaque populations in South and Southeast Asia. The LTMP focuses on researching population distribution, density and abundance, national and international trade, and human-macaque interfaces. The project aims to share results with policy makers and government officials, enabling evidence-based conservation and management initiatives for the species. The project works through and supports local habitat-country researchers, collaborates with experts across the globe and aids the IUCN SSC Primate Specialist Group with conservation status assessments. The LTMP was instrumental in the recent reassessment of the status of the southern pig-tailed macaque and the long-tailed macaque, including all subspecies, which recently led to both species being uplisted to Endangered.

10.4 SOLUTIONS

It is clear that **improvement to legislation, consistency in enforcement, and partnerships with NGOs and other relevant initiatives are vital to end the overwhelming abuse and exploitation that currently threaten Indonesia's unprotected macaques.** Long-tailed and pig-tailed macaques will only be safe when wild capture for export, research, breeding, consumption, performance and the pet trade are no longer a threat, and they are no longer at risk of being killed as a quick solution to problematic interactions with local people. Governments around the world must work together to legislate to stop global online platforms from hosting and enabling the trade and abuse of macaques and other animals.

In order for much of the above to happen, it is first essential to seek to understand local negative interactions between primates and humans so that appropriate solutions can be offered and tailored to specific situations. Scientists suggest that adopting a combined approach is the best way to resolve and manage such negative interactions. A combined approach could include any number of these various solutions:

- Involving a wide variety of third parties (government representatives, moderators, scientists, internal peacemakers) [149]
- Providing technical, legislative, financial and educational strategies [149]
- Providing management strategies such as:
 - fencing resources
 - zoning areas of resource use
 - changing the nature of the agricultural crops
 - creating deterrents
- Providing organizational strategies such as:
 - the allocation of land and resources for both humans and primates to reduce the risk of negative interactions
 - offering direct and indirect benefits to local people, including compensation
 - translocating primates - but only when no other option has been successful [150]
- Accounting for attitudes and perceptions that are shaped by cultural, social, and economic factors [151].



Many of the strategies mentioned above focus on solutions that directly affect humans and their interactions with primates, but these solutions can sometimes clash with cultural beliefs. Tackling ingrained beliefs can be challenging but many educational campaigns have proven to be effective [152–154].

Research from Tanzania demonstrated that although crop-foraging monkeys were blamed for more crop losses than were actually observed, the monkeys were in fact having a beneficial impact on the farmers' crops, probably by performing a pruning function [155]. This shows that perceptions of negative impacts can be false, and can be challenged [156,157]. Accepting the costs and benefits of interactions with primates is important and a prominent tradition among some cultures [37,158]. Indeed, **protecting primates and their environments can bring great advantages to populations who are themselves directly reliant on their environment.** Protecting natural areas and species is fundamental in conserving our biodiversity, but these natural protected areas, sustained by the protection of wildlife, in turn offer sustainable living conditions to local populations who are already badly impacted by deteriorating climate conditions.



We know that cultures and values in a society change and adapt [159]. Where primates and wildlife are traditionally used in folklore, medicine, and rituals, we can reasonably envision a future where the cultural traditions are retained but adapted to the present urgency of protecting macaques, where primates are represented in different ways that do not involve causing harm.

A fundamental change is needed in public perceptions about the keeping of wild animals, including macaques, as pets - in Indonesia and globally. Some argue that keeping a primate as a pet can have positive conservation impacts, such as protecting individuals from habitat loss or degradation, or the provision of adequate and safe care [160]. These claims are unfounded and the unsuitability of primates as pets is well-documented [108,161]. Primate ownership is also associated with the quest for social status or profitability on social media [5,105]. By their particular ability to disseminate mis- and dis-information about the ease and appropriateness of primate pet ownership, social media platforms are thought to have played a key role in increasing public interest in obtaining wild animals as pets, and indeed they are known to facilitate much illegal trade in such animals. **Platforms must strengthen and properly enforce their policies relating to content that encourages and facilitates primate pet keeping and trade.** Indonesia could follow the precedent recently set by Brazil's Institute of Environment and Renewable Natural Resources (IBAMA), which recently levied a substantial fine against Facebook for "exposing 2,227 specimens of native wildlife for sale without proper permission, license or authorization from the competent environmental authority" [162].



Social media is also rife with content showing tourists inappropriately interacting with wild animals and creating an appetite for such interactions [122]. This is particularly the case with habituated macaques in Indonesia and across Asia. Many educational campaigns target tourists specifically, encouraging them not to feed, touch or interact with macaques in tourist areas [163]. The adoption of wildlife-responsible behaviors benefits macaques by reducing negative interactions, reducing risk of obesity, diseases and aggression between group members. It also benefits tourists, whose risks of injury and disease are reduced and who can benefit from observing macaques engaging in normal behavior from a respectful distance.



Many organizations, research projects and conservation initiatives work tirelessly to protect macaques and their habitats. Such organizations, including those involved in the production of this report, not only raise awareness but also closely monitor long-tailed macaque populations, investigate and offer solutions to the trade and the consequences of negative interactions. Supporting such genuine and dedicated projects is a wonderful way for members of the public to help. Oftentimes, it is difficult to know how to help from far away while remaining confident that support is properly directed. But supporting trusted and proven organizations is one of the most effective ways to help, as these projects work in the field with various stakeholders and have a deep understanding of the local regulations and possibilities. Indeed, any support provided to these organizations (financial, material, moral) allows them to carry out their work and to directly act in-situ.

One major challenge in mitigating the many harms caused by macaque exploitation in Indonesia is that proper enforcement of existing legislation can be poor [94]. Even if such legislation were well-enforced, long-tailed and pig-tailed macaques currently are afforded very little legal protections. Particularly in light of the recent change to each of their conservation status from Vulnerable to Endangered, it is imperative that both long-tailed and pig-tailed macaques are added to the Indonesian national list of protected species relating to Government Regulation No. 7, 1999, “Concerning the Preservation of Flora and Fauna”. CHAPTER III (see Appendix I). Law enforcement should always be tailored to a society’s culture and values and proper enforcement requires concerted work: corruption must be tackled, adequate training must be provided, paperwork checks must be implemented, holding centers for animals will be required [164,165]. Legal protection for macaques would bring macaques one step closer to safety.

In addition to national protection, international vigilance and the strengthening and enforcement of regulations relating to capture, breeding, acquisition and transport are necessary. In reality, the abuse of millions of macaques for biomedical research and toxicity testing will not prevent or solve the next pandemic, but there is evidence that the close and crowded confinement of stressed wild animals, as seen in markets and breeding centers, creates the perfect conditions for the next one [166].



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APPENDIX I - Relevant National Legislation

Wildlife Conservation Law

The Act of the Republic of Indonesia No.5 of 1990 concerning Conservation of Living Resources and their Ecosystems, widely known as the Conservation Act (No. 5) of 1990, is the principal legislation for conservation matters in Indonesia. Chapter V Article 21 states that protected species are not allowed to be captured, hurt, kept, destroyed, transported within or out of Indonesia, or traded.

Protected species are listed under the Government Regulation No. 7, 1999, "Concerning the Preservation of Flora and Fauna". CHAPTER III, Article 4 states:

(1) Flora and fauna species shall be specified on the basis of group:

- i. protected flora and fauna;*
- ii. not protected flora and fauna.*

The current protected species list is the P.106/2018 Second Amendment to the Regulation of the Ministry of Environment and Forestry 2018 Concerning Protected Types of Plants and Animals. Neither pig-tailed macaques nor long-tailed macaques are listed.

Legal trade and quotas

Capture and trade in non-protected species is regulated under Regulation of the Ministry of Forestry No. 447/Kpts- II/2003 concerning Administration Directive of Harvest or Capture and Distribution of the Specimens of Wild Plant and Animal Species. This regulation states that an annual provincial quota is set for all species that can be harvested from the wild. Irrespective of whether the species concerned is protected or not, it is prohibited to harvest species for which no quota has been set, that are in excess of the quotas, or harvest from outside provinces for which quotas have been set.

SK 447, 2003

Article 8 (Quota Establishment)

(1) Recommendations referred to in Article 6 paragraph (2) shall be based on scientific data or information from population inventory or monitoring.

(2) In the case of the lack of data or information referred to in paragraph (1), information may be gathered based on:

- a. Habitat and population condition of the said species;*
- b. Other scientific and technical information concerning population and habitat of the said species;*
- c. Actual harvest or capture of the quota of previous years;*
- d. Traditional knowledge.*

Animal Welfare Law

Indonesia's Animal Welfare law (**Menteri Lingkungan Hidup Dan Kehutanan, Republik Indonesia, No. P.20/Menlhk/Setjen/Kum.1/6/2018, Tentang, Jenis Tumbuhan dan Satwa Yang Dilindungi**) is applicable to all vertebrates and to invertebrates that can feel pain.

Article 1(42) of Law No. 18 of 2009 (Husbandry and Animal Health) defines animal welfare as "...matters relating to animal physical and mental conditions based on the natural behavior of animals that needs to be applied and enforced for animal protection from any unreasonable action of any person against the animal that is beneficial to human being".

Part 2 (66) of Law 18 of 2009 states that "in the interest of animal welfare, measures are taken that relate to catching and handling, placement and multiplication, care, transportation, slaughtering and killing, as well as 'reasonable treatment and tender care of an animal'".

This is to be implemented with humanity so that: [among others] "maintenance, safeguarding, care and attention of animal shall be conducted properly so that the animal is free from hunger and thirst, pain, torture and misuse, as well as from fear and under pressure."

Government Regulation No. 95 of 2012 concerning veterinary public health and animal welfare, which provides that the concept of animal welfare in that Regulation is applicable to any animal whose survival depends on humans.

Appropriate treatment toward animals is also regulated more specifically in **Article 92 of Government Regulation Number 95 of 2012** concerning Veterinary Public Health and Animal Welfare ("Law 95/2012") which describes:

It is prohibited to:

1. use animals beyond their natural capabilities which may affect the health, safety, or cause death of Animals;
2. provide a substance that stimulates the function of the Animal's organs beyond the normal physiological limits which may endanger the health, safety, or cause the death of the Animal;
3. apply modern biotechnology to generate Animals or transgenic Animal products that endanger the preservation of Animals, the safety and inner peace of the community, as well as the preservation of environmental functions;
4. take advantage of the animal's physical abilities beyond their limits.

Article 302 of the KUHP (Penal Code). This article recognizes two types of criminal acts, namely the mild mistreatment of animals and the mistreatment of animals. Article 302 states:

(1) By a maximum imprisonment of three months or a maximum fine of IDR 4500* shall, being guilty of light mal-treatment to animals, be punished:

- I. any person who without reasonable objective or by overstepping what is permissible in reaching such objective, with deliberate intent causes pain or harm to an animal or causes injury to the health of an animal;
- II. any person who without reasonable objective or by overstepping what is permissible in reaching such objective, with deliberate intent withholds the necessary sustenance from an animal that wholly or partially belongs to him and is under his supervision, or from an animal to the sustenance of which he is obliged.

(2) If the fact results in an illness of longer than one week, mutilation, serious harm of another nature; or death of the animal the offender shall by reason of mal-treatment to animals be punished by a maximum imprisonment of nine months or a maximum fine of IDR300.

The fine as stipulated in Article 302 section 1 is amended based on the Regulation of the Supreme Court Number 2 of 2012 concerning Settlement of Minor Crime Limitation and Amount of Fines in the Criminal Code. Thus, the amount of the fine in section 1 is 4,500 multiplied by 1000 times, which means the fine is IDR 4,500,000, whereas in section 2 the fine is amended to 300,000.

Regulation Number 21 of 2019 concerning Animal, Fish and Plant Quarantine: Article 35 explains the obligations of a person in terms of importing and exporting animals from one region to another within Indonesia: Any person who moves plants or animals from one region to another within the territory of the Republic of Indonesia shall:

1. Accompanied by a health certificate from the place of exit determined by the Central Government for Animals, material of animal origin, Fish, material of fish origin, Plants, and/or plant products;
2. Import and/or export the plants or animals through the designated place of Entry and Exit determined by the Central Government; and
3. Report and submit the plants or animals to the Quarantine Officer at the designated exit determined by the Central Government for the purposes of Quarantine proceeding and supervision and/or control;
4. Submit other required documents in accordance with the provisions of the regulations.

In the event that the plants or animals are in transit in one Area, it must be accompanied by a Transit certificate issued by the Quarantine Officer from the place of Transit.

Furthermore, Article 88 explains further concerning the punishment for anyone who violates the law, which stated :

It is prohibited to:

1. Transport the plants or animals from one Area to another within the territory of the Republic of Indonesia without a health certificate from the place of exit designated by the Central Government for Animals, Animal Products, Fish, Fish Products, Plants, and/or Products Plants as referred to in Article 35 section (1) a;
2. Import or export through place of entry and exit other than those determined by the Central Government, as referred to in Article 35 paragraph (1) b;
3. Fail to report plants or animals to the Quarantine Official at the Entry and Exit Points determined by the Central Government for the purposes of Quarantine proceeding and supervision and/or control as referred to in Article 35 paragraph (1) c; and/or
4. Transport plants or animals without accompanied by transit certificate as referred to in Article 35 section (4)

A person who fails to comply with the regulations above shall be sentenced to a maximum imprisonment of 2 (two) years and a maximum fine of Rp. 2,000,000,000.00 (two billion rupiah).

APPENDIX II - Macaque killing

Method	Species and number	Reason	Date and region	Link
Shooting	Long-tailed macaque	Macaques labeled as "pests", permission granted by BKSDA to mass-kill. If humans feel threatened by or consider macaques as enemies or pests, the public are allowed to shoot them	April 2018; Central Java	https://www.jawapos.com/jpg-today/03/04/2018/monyet-masuki-pemukiman-warga-bksda-silahkan-ditembak/
Shooting	Long-tailed macaque	Macaques labeled as "pests", permission granted by BKSDA to mass-kill. "Monkeys that disturb residents can be shot", "If it endangers human safety, it can be destroyed".	April 2018; Central Java	https://www.merdeka.com/peri-stiwa/monyet-liar-di-kawasan-kampus-unika-semarang-boleh-diburu.html
Firefighters to search for and expel the macaques, if not possible, they have asked Perbakin to conduct a hunt	Long-tailed macaque	Macaques labeled as "pests", permission granted by BKSDA to mass-kill. Response to damage of buildings.	January 2022; Central Java	https://news.detik.com/berita-jawa-barat/d-5902938/kawanan-monyet-liar-rusak-sekolah-serang-siswa-di-kuningan
Residents, Koramil officers, Rencah police, BKSDA, and Perbakin hunted two long-tailed macaques	Two long-tailed macaques	Macaques labeled as "pests", permission granted by BKSDA to mass-kill. Response to livestock attack incidents.	December 2021; West Java	https://www.viva.co.id/berita/nasional/1432494-monyet-yang-mangsa-ayam-dan-kambing-milik-warga-ciamis-diduga-rajanya
Dozens of men from army, police, and local hunters, armed with rifles, patrol villages searching for long-tailed macaques	Long-tailed macaque	Macaques labeled as "pests", permission granted by BKSDA to mass-kill. Response to crop foraging and resident disturbance.	August 2017; West Java	https://news.yahoo.com/indonesia-district-deploys-snipers-fight-monkey-attacks-142249412.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xLmNvbS8&guce_referrer_sig=AQAAA4LWJRakbqGPuQ4hmkw-kbAHi0poMzc8JwtoqjO910uNjcDLXGxXt5c8T9Z4CWFBdtssBA7fyAMwl5QYgmTL4Jnl34ZopDD6yf_9EFCHv-bOCwoJVikJhGlonCXOqX_DT0YKaWikNjQzwRQUzdzqTqBcwnlJAU075g6bJa96mZ_Sc
N/A	Long-tailed macaque	Macaques labeled as "pests", permission granted by BKSDA to mass-kill. BKSDA recommends eradicating animals, like long-tailed macaques, if they disturb humans.	April 2018; Central Java	https://jateng.tribunnews.com/2018/04/03/bolehkah-membunuhkera-jika-dirasameresahkan-bksda-jateng-boleh-dibasmi?page=2
Individual killed by the Jambi Natural Resources Conservation Center team and the Kerinci Resort Police; a brain examination was also done to determine if the macaque was infected with the rabies virus	One long-tailed macaque	Macaques labeled as "pests", permission granted by BKSDA to mass-kill. Response to bite incident.	April 2009; Jambi	https://health.kompas.com/read/2009/04/14/17521322/~Regional~Sumatera?newnavbar=1

APPENDIX II - Macaque killing

Intensive hunting and finally shot by Perbakin	Long-tailed macaque	Released/escaped pets, shot by Perbakin (National Shooting Association). Response to resident disturbance and bite incidents.	August 2019; East Java	https://www.merdeka.com/istiwa/kera-liar-yang-resahkan-warga-situbondo-akhirnya-ditembak.html
Shooting conducted by Perbakin, whilst coordinating with BKSDA	Specifically one long-tailed macaque, though when herd was found, shots were fired at all individuals	Released/escaped pets, shot by Perbakin (National Shooting Association). Individual was a pet and was released from the chain and subsequently a bite incident occurred.	March 2022; Central Java	https://beritakita.net/bpbd-sragen-turunkan-anggota-perbakin-untuk-tangkap-monyet-yang-gigit-warga
Shooting by teenager with air rifle, no other authorities or organizations involved, no mention of the action being as a result of an incident.	One long-tailed macaque	YOUNG BOY SHOOTS MACAQUE WITH AIR RIFLE (USE ELSEWHERE). Teenager shoots individual with air rifle before uploading photo to social media.	October 2020; Indonesia	https://www.suara.com/news/2020/10/28/085708/ditegur-pamer-tembak-monyet-remaja-kenapa-gak-urusin-pulau-komodo?page=all
Shooting by Perbakin after permission was granted from BKSDA following a letter of application from the farming group.	Unknown macaque species; unknown number	Designated agricultural “pests” shot by Perbakin (National Shooting Association). Response to crop disturbance.	February 2019; West Sumatra	https://sumbar.antaranews.com/berita/246339/puluhan-tupai-dan-kera-pengganggu-lahan-pertanian-dimusnahkan-perbakin-agam
Police and residents searched for then shot individual with an air rifle.	One individual, unknown species	Response to bite incident	May 2020; Aceh, Indonesia	https://www.ajnn.net/news/monyet-liar-ditembak-mati-usai-gigit-bocah-di-gampong-jawa/index.html
Killed by the Jambi Natural Resources Conservation Center team and the Kerinci Resort Police; a brain examination was also done to determine if the macaque was infected with the rabies virus, if the individual was infected, BKSDA will then carry out mass killing of the macaque group in that location.	One long-tailed macaque	Response to bite incident	April 2009; Jambi, Indonesia	https://health.kompas.com/read/2009/04/14/17521322/~Regional~Sumatera?newnavbar=1
Karangtengah police and Perbakin hunted the individual.	One long-tailed macaque, though were hunting the group	Response to bite incident	October 2017; West Java	https://www.liputan6.com/regional/read/3125732/serang-bayi-monyet-liar-jadi-buruan-polisi-cianjur-dan-perbakin
Poisoned by a resident in the area.	Three long-tailed macaques eventually died, one was rescued	Response to crop foraging	July 2020, West Java	https://news.detik.com/berita-jawa-barat/d-5099587/kesal-kebunnya-dirusak-oknum-warga-racun-monyet-ekor-panjang-di-lembang

APPENDIX II - Macaque killing

Individual was shot.	One individual, unknown species	Response to bite incident	August 2019, East Java	https://www.merdeka.com/peristiwa/serangan-kera-misterius-lukai-8-warga-situbondo.html
Shot four times with drugs (two missed), then handed over to BKSDA.	Long-tailed macaque	The individual was suspected to be a released or escaped pet	October 2018; West Java	https://www.merdeka.com/peristiwa/monyet-lepas-teror-warga-di-medansatria-bekasi-20-orang-terluka.html
Agriculture and Fisheries Service and the Fire Department to evacuate the herd.	Long-tailed macaque	Response to bite incident	June 2018; West Java	https://www.merdeka.com/peristiwa/monyet-liar-gigit-2-petugas-keamanan-pemkot-bekasi-kerahkan-damkar.html
Hundreds of snipers from TNI, Police, and Perbakin were deployed. Police say they used rubber bullets and any individuals caught were handed over to BKSDA.	Unknown	Response to crop foraging and bite incident	August 2017; Central Java	https://www.merdeka.com/peristiwa/seratus-penembak-jitu-tni-dan-polri-disiagakan-usir-serangan-kera.html
Resident's granted permission from BKSDA to shoot the macaques with tranquiliser bullets.	Macaque	Response to bite incident	August 2017; Central Java	https://www.abc.net.au/news/2017-08-07/residents-turn-to-hunting-macaque-monkeys-after-repeated-attacks/8783164
A license to shoot on sight with rubber bullets.	Macaque	Response to bite incident	August 2017; Central Java	https://www.newsweek.com/in-donesia-wages-war-monkeys-authorities-ordered-shoot-sight-646244
Hunting and shooting by TNI, Polri and Perbakin.	Long-tailed macaque (1 known to have been shot)	Response to bite incident	August 2017; Central Java	https://www.bbc.com/indonesia/indonesia-40836201
Residents chased away the individual with air rifles, spears, and by throwing stones, before the individual was eventually shot dead from wounds to the stomach, chest, and waist.	One, Long-tailed macaque	Response to bite incident	June 2021; Medan, North Sumatra	https://regional.kompas.com/read/2021/06/19/061600778/cerita-di-balik-monyet-yang-ditembak-mati-karena-serang-warga-dulu-sempat
The individual was lured out of the ceiling with a stick and whistle before two residents shot the individual with an air rifle.	One, Long-tailed macaque	Response to resident disturbance	August 2019; Mojokerto, East Java	https://news.detik.com/berita-jawa-timur/d-4659095/seekor-monyet-liar-ditembak-mati-saat-acak-acak-rumah-warga-di-mojokerto
Residents were assisted by Perbakin in hunting and shooting the individuals, one was killed.	Two, Long-tailed macaques (one was killed)	Response to livestock disturbance	December 2021; Ciamis, West Java	https://www.tvonenews-com.translate.goog/berita/18750-satu-monyet-penebar-teror-di-ciamis-tewas-ditembak-warga-buru-seekor-lainnya?_x_tr_sl=id&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc

APPENDIX II - Macaque killing

Residents and Perbakin hunted the individual, Perbakin attempted to use an air rifle though there were too many people and so the individual was captured by the residents.	One, Unknown	Response to bite incident	October 2017; Cianjur, West Java	https://www-republika-co-id.translate.googleusercontent.com/berita/oxuxo7318/tertangkapnya-si-monyet-penyerang-warga?_x_tr_sl=id&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc
The head of the village asked TNI, Polri, and Perbakin to hunt the macaques; the 10 officers, armed with rifles, hunted the individuals before shooting one of them.	Unknown number, Long-tailed macaque (one was shot)	Response to bite incident	August 2017; Central Java	https://beritagar-id.translate.googleusercontent.com/artikel/berita/aksi-perlawanan-serangan-monyet-dan-protos-pegiat-satwa?_x_tr_sl=id&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc
Hunting the individuals with sniffer dogs, snipers from the TNI, Polri, BKSDA, and Perbakin, also brought in animal handlers and set traps.	Unknown	Response to bite incident	April 2017; Boyolali, Central Java	https://www-solopos-com.translate.googleusercontent.com/satwa-liar-boyolali-dua-pekan-perburuan-monyet-peneror-warga-karanggede-hasilnya-nihil-806635?_x_tr_sl=id&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc

APPENDIX III - Macaque breeding centers in Indonesia

Name of facility	Latest permit	Latest decree	Office location	Breeding center location	Status	Cage type	SPF Level	Additional info
BioMedical Technology Indonesia Ltd (formerly Indo Anilab Ltd) - IPB University			Bogor	Bogor	Active (2022)	Holding cages only	1, 2, 3	Supplies raw material to Bio Farma Ltd. for polio vaccine
Gelora Mandiri Inc			Jakarta		Active (2022)			
Indo Biomedical Inc	May 5, 2010	SK.85/BBK SDA-JABAR.2/2010	Bogor	Bogor	Active (2021)			
Indo Biomedical Inc	May 5, 2010	SK.85/BBK SDA-JABAR.2/2010	Bogor	Bogor	Active (2021)			
Jedo Indonesia Ltd			Tangerang		Active (2022)			Jedo Indonesia (Ltd) is registered assorghum plantation company
Labsindo Inc (formerly named Primates Inc)			Tangerang	Deli Island		Open		Listed as export orientation and supply product from small medium enterprise

Mac Fauna Ltd			Bintan, Kepulauan Riau	Riau Island	Active (2022)			
Macalaris Ltd	February 15, 2012	SK.36/BBK SDA- JABAR.2/2 012	Bogor					
New Inquatex Inc	October 18, 2013	SK.177BBK SDA- JABAR.2/2 013	Bogor	Bogor	Active (2021)	Semi-open	1,2	
Prestasi Fauna Nusantara Ltd			Jakarta	Tangerang		Open		Harvest 3x per year @200-250
Primaco Indonesia Inc			Jakarta	Purwakarta	Active (Agricultu ral Quarantin e Agency20 20); Active (Director General 2021);Te mporarily closed (Central Bureau ofStatistic s 2021)			
Primate Research Center - IPB University	March 30, 2013	SK.90/BBK SDA- JABAR.2/2 013	Bogor	Tinjil Island	Active (2022)	Open		The operational permit expired in 2020. (Nature Conservation Agency 2016). Almost two years applying the extension but still have not recommendation from Perum Perhutani.
Universal Fauna Inc			Jakarta	Umang Island	Active (2019)			
Wanara Satwa Loka Ltd	October 13, 2013	SK.179/BB KSDA JABAR.2/2 013	Bogor	Bogor	Active (2022)	Closed	1, 2, 3	Export 300-400 individuals / year

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ASIA FOR ANIMALS COALITION CORE MEMBER ORGANIZATIONS:

- Anima Society for the Protection of Animals (Macau)
- Animal Concerns Research & Education Society
- Animal Guardians
- Animal People Forum
- Animal Protection Denmark
- Animal Rescue Cambodia
- Animals Asia Foundation
- Big Cat Rescue
- Blue Cross of India
- Born Free Foundation
- Change for Animals Foundation
- Federation of Indian Animal Protection Organisations
- FOUR PAWS International
- Global Federation of Animal Sanctuaries
- Humane Society International
- Jane Goodall Institute - Nepal
- Philippine Animal Welfare Society
- Sarawak Society for the Prevention of Cruelty to Animals
- Society for the Prevention of Cruelty to Animals Hong Kong
- VShine Animal Protection Association
- World Animal Protection



ANIMAL PROTECTION DENMARK



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- ACTAsia
- Action for Dolphins
- Action for Primates
- Advocating Wild
- All Life In A Viable Environment
- Alliance for Earth, Life, Liberty & Advocacy
- Animal & Biodiversity Programme at the Global Research Network Think Tank
- Animal Advocacy and Protection
- Animal Friends Croatia
- Animal Friends Jogja
- Animal Kingdom Foundation
- Animal Neighbours Project
- Animal Nepal
- Animal Projects & Environmental Education (APE Malaysia)
- Animal Rescue Organization Pakistan
- Animal Rights Center Japan
- Animal Welfare And Anti Harassment Society
- AnimalConcepts
- Animals Don't Speak Human
- Bali Animal Welfare Association
- Bali Monkey Aid Network
- Ban Animal Trading
- British Hen Welfare Trust
- Captured in Africa Foundation
- Cat Beach Sanctuary Penang
- Catalyst
- Catholic Concern for Animals
- Cattitude Trust - Chennai
- China Biodiversity Conservation and Green Development Foundation
- Coalition For Cruelty Free Africa
- Compassion Unlimited Plus Action
- Compassion Works International
- Corbett Foundation
- Djurskyddet Sverige (Animal Welfare Sweden)
- Elephanatics
- Elephants in Japan
- Elephation
- English Budgie
- Environment & Animal Society of Taiwan
- Environment Films
- Fish Welfare Initiative
- FLIGHT
- For Tigers
- Franciscan Order - Hong Kong
- Fundación para el Asesoramiento y Acción en Defensa de los Animales
- Future 4 Wildlife
- Global Animal Welfare
- Global Sanctuary for Elephants
- GREY2K USA Worldwide
- Greyhound Compassion
- Help Animals
- Help Animals India
- Himalayan Animal Rescue Trust
- Hollow Paws
- Humane Animal Society
- Humane League Japan
- Humane Research Australia
- In Defense of Animals USA
- In Defense of Animals, India
- International Otter Survival Fund
- International Primate Protection League
- International Timez
- Israeli Primate Sanctuary Foundation
- Jakarta Animal Aid Network
- Japan Anti-Vivisection Association
- JBF Trust India
- Karuna Society for Animals & Nature
- Kolkata Animal Welfare Indian Foundation
- Kurdistan Organization for Animal Rights Protection
- Laboratoire d'écologie et environnement - Université de Bejaia - Algeria
- Lady Freethinker





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- Landmark Foundation
- Lawrence Anthony Earth Organization
- Lifelong Animal Protection
- Moving Animals
- Neotropical Primate Conservation
- Nepal Animal Welfare and Research Center
- North American Primate Sanctuary Alliance
- One Voice
- One World Actors Animal Rescues
- ONG Sante Animale Afrique
- Orangutan Aid
- Orca Rescues Foundation
- PACK Taiwan
- Pan African Sanctuary Alliance
- People for the Ethical Treatment of Animals
- Performing Animal Welfare Society
- PETA Asia 亚洲善待动物组织
- Plants and Animals Welfare Society
- Plataforma ALTO
- Proyecto ALA Animales Latino América
- Put an End to Animal Cruelty and Exploitation
- Rhino & Elephant Defenders
- Sahabat Alam Malaysia (Friends of the Earth Malaysia)
- Samayu
- Sanctuary for Health & Reconnection to Animals & Nature
- Save Animals Initiative Sanctuary Trust
- Save Animals Value Environment Jammu and Kashmir
- Save The Asian Elephants
- Save the Dogs and Other Animals
- Sea First Foundation
- Sheldrick Wildlife Trust
- Showing Animals Respect and Kindness
- Society for Animal Welfare and Management
- Society for the Prevention of Cruelty to Animals, Selangor
- Society for the Prevention of Cruelty to Animals, Singapore
- Society for the Protection of Animals, Ljubimci
- Society for Travelers Respecting Animal Welfare
- Soi Dog Foundation
- Sống Thuần Chay
- Stray Relief and Animal Welfare
- Stripes and Green Earth Foundation
- Taiwan Society for the Prevention of Cruelty to Animals 台灣防止虐待動物協會
- Tree of Compassion
- Vervet Monkey Foundation
- Voice for Dogs Abroad
- Voice for Zoo Animals
- Voice of Animal Nepal
- Voice4Lions
- We Animals Media
- Wild & Free - Rehabilitation & Release
- Wild Futures
- Wild Welfare
- Wildlife Alliance
- Wildlife Friends Foundation Thailand
- Wildlife Rescue and Rehabilitation Centre
- Winsome Constance Kindness Trust
- Zoocheck





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Wildlife Friends Foundation

WRRC
WILDLIFE RESCUE AND REHABILITATION CENTRE

WG
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